MICHAEL J. GEARIN (*admitted pro hac vice*)
MICHAEL B. LUBIC (SBN 122591)
MICHAEL K. RYAN (*admitted pro hac vice*)
K&L GATES LLP
10100 Santa Monica Boulevard, Seventh Floor
Los Angeles, California 90067
Telephone: 310.552.5000
Facsimile: 310.552.5001
Email: michael.gearin@klgates.com
michael.lubic@klgates.com
michael.ryan@klgates.com

Attorneys for California Public Employees' Retirement System

UNITED STATES BANKRUPTCY COURT

EASTERN DISTRICT OF CALIFORNIA

SACRAMENTO DIVISION

In re CITY OF STOCKTON, CALIFORNIA, Debtor.	Case No. 2012-32118 (CMK) Chapter 9 **EXHIBITS 1 THROUGH 7 TO THE DIRECT TESTIMONY DECLARATION OF DAVID LAMOUREUX IN SUPPORT OF CALPERS' RESPONSE TO FRANKLIN'S OBJECTION TO CONFIRMATION OF THE CITY OF STOCKTON'S FIRST AMENDED PLAN OF ADJUSTMENT** Date: May 12, 2014 Time: 9:30 a.m. Place: Robert T. Matsui U.S. Courthouse, 501 I Street Department C, Fl. 6, Courtroom 35 Sacramento, CA 95814 Judge: Hon. Christopher M. Klein

TABLE OF CONTENTS FOR EXHIBITS TO THE

DIRECT TESTIMONY DECLARATION OF DAVID LAMOUREUX

EXHIBIT 1

Vested Rights of CalPERS Members

Protecting the pension promises made to public employees

July 2011

CalPERS

CalPERS Profile

The California Public Employees' Retirement System (CalPERS) is the nation's largest public pension fund with assets of approximately $240 billion.

Headquartered in Sacramento, CalPERS provides retirement and health benefit services to more than 1.6 million members and 3,033 school and public employers. The System also operates eight Regional Offices located in Fresno, Glendale, Orange, Sacramento, San Diego, San Bernardino, San Jose, and Walnut Creek. Led by a 13-member Board of Administration, consisting of member-elected, appointed, and ex officio members, CalPERS membership consists of approximately 1.1 million active and inactive members and more than 500,000 retirees, beneficiaries, and survivors from State, school and public agencies.

Established by legislation in 1931, the System became operational in 1932 for the purpose of providing a secure retirement to State employees who dedicate their careers to public service. In 1939, new legislation allowed public agency and classified school employees to join the System for retirement benefits. CalPERS began administering health benefits for State employees in 1962, and five years later, public agencies joined the Health Program on a contract basis.

A defined benefit retirement plan, CalPERS provides benefits based on a member's years of service, age, and highest compensation. In addition, benefits are provided for disability and death.

Today CalPERS offers additional programs, including a deferred compensation retirement savings plan, member education services, and an employer trust for post-retirement benefits. Learn more at our website at **www.calpers.ca.gov**.

Contents

I. Introduction

Recent economic crises affecting the world's governments and markets have brought fiscal pressures on state and local budgets in California. Budgetary constraints have focused attention on the cost of providing public services, and no cost has received more attention than the compensation and benefits earned by our public employees. Commissions, political leaders and private citizens all have weighed in on the subject, each proposing wide-ranging "reforms" aimed at reducing the retirement benefits earned by public servants. Proposals have included, for example: moving to less advantageous benefit formulas, imposing caps on pensionable compensation, changing the definition of pensionable compensation to exclude items that are currently included, lengthening the "final compensation" period on which benefits are calculated, restricting employees' rights to purchase additional service credit, lengthening eligibility periods, increasing employee contributions and eliminating employer paid member contributions. Many of these proposals seek to apply these "reforms" to currently active employees as well as those who may be hired in the future.

Understandably, this attention on the compensation and benefits of members of the California Public Employees' Retirement System ("CalPERS") has raised concerns as to the level of assurance the law provides that promised pensions will be available upon retirement.

CalPERS has prepared this paper for two purposes:

- To articulate the current state of California law regarding the nature of its members' pension rights and the extent to which such rights have become "vested" and may not be impaired; and

- To explain the role of CalPERS in ensuring that its members' vested rights are honored.

This paper is not intended to respond to any particular proposed legislation or initiative. Rather, it is intended to present CalPERS' institutional views in the broader context of its primary governing laws: the California Public Employees' Retirement Law (Gov't Code §§ 20000, et seq.) (the "PERL") and the California and United States Constitutions. The merits and enforceability of any new proposal must be analyzed on its own unique terms and conditions.

Finally, although some of the general principles and authorities discussed in this paper may be relevant to plans CalPERS administers other than the Public Employee Retirement Fund defined benefit plan, this paper is not intended to address any issues related to the CalPERS' health benefits plans, defined contribution plans, the Legislators' Retirement System or the Judges' Retirement Systems (I and II).

II. Overview: Member Benefits And Contributions

California law clearly establishes that public employee retirement benefits are a form of deferred compensation and part of the employment contract. Rights to this deferred compensation are earned when the employee provides service to the public employer.

By statute and contract, public employers, not CalPERS, decide how much of an employee's compensation will be paid currently and how much will be deferred and paid in the future. Simply put, employers grant the benefits owed to CalPERS' members. CalPERS in turn serves as the trustee of the trust created to fund these benefits, through the prudent administration and investment of the retirement fund.

The rights of all CalPERS members are established by statute. In the case of local agencies, members' rights are also governed by the contract between the agency and CalPERS. When contracting with CalPERS, local agencies may choose from a menu of options. Benefits for CalPERS members are often the product of collective bargaining.

This section provides a general overview of the core benefits earned by CalPERS members. It is not intended to be a comprehensive description of all benefits and rights of all CalPERS members.

A. Service Retirement Allowance

Each CalPERS member earns service credit towards a lifetime retirement allowance after employment, calculated under a formula which accounts for the member's years of credited service, the member's "final compensation" and the member's age at retirement. Each benefit formula is commonly referred to as a specified percentage of a member's "final compensation" for each year of service, based on a particular age at retirement. For example, under a "2% at 55" benefit formula, a member receives 2% of his or her "final compensation" per year of credited service, if that member retires at age 55. If the member retires earlier or later than age 55, the member receives a lower or higher percentage of "final compensation," according to a statutory table. For example, under the "State 2% at 55" table, a member retiring at age 50 receives 1.1% of "final compensation" per year of credited service. A member retiring at age 63 or older receives 2.5% of "final compensation" per year of credited service.

As noted, each formula applies a multiplier to a member's "final compensation." For some members, "final compensation" means the highest one-year average pensionable "compensation earnable" that they earn during their careers. For other members, the highest annualized three-year average "compensation earnable" that they earn during their careers is used. In general terms, "compensation earnable" includes the member's "payrate" (essentially base salary) and certain items of "special compensation," which are established as pensionable by law or regulation. "Compensation earnable" generally does not include items such as overtime pay and amounts that are not available to employees in the same group or class of public employment.

B. Disability Retirement Allowance

If a member has an injury or illness that prevents the member from performing the customary duties of his or her regular position, the member may be eligible for a disability retirement. If a member's disability is the result of a job-related illness or injury, and the member is a school, local or State safety, State peace officer/firefighter, State industrial, or State patrol member, the member may be entitled to an industrial disability retirement. Local miscellaneous members also may be eligible if their employer contracts with CalPERS to provide for an industrial disability retirement.

A member who is granted a disability retirement receives the greater of the service retirement allowance (if eligible) or an allowance based on a specified formula applicable to that member. A member who is granted an industrial disability retirement allowance receives the greater of his or her service retirement allowance (if eligible) or a specified percentage of the member's "final compensation" (usually 50%, but 60% for some members), plus an annuity purchased with his or her accumulated additional contributions.

"California law clearly establishes that public employee retirement benefits are a form of deferred compensation and part of the employment contract."

C. Purchase of Service Credit

If they meet eligibility requirements, active members are entitled to purchase additional retirement service credit, which increases their retirement allowance. Additionally, where eligible, members can purchase service credit for prior public service, military service and certain other types of service. The member's cost to purchase additional service credit is set by statute and is based on actuarial assumptions and methodologies determined by the Board of Administration ("Board").

D. Death and Survivor Benefits

CalPERS provides benefits to the beneficiaries of active and retired members upon the member's death. Benefits and eligible recipients vary based on whether the member was still working at the time of death or was retired, and by the member's employer, occupation and the specific provisions in the contract between CalPERS and the employer. Additionally, a member may opt to have his or her retirement allowance reduced in order to increase the benefits that will become payable to the member's beneficiaries after the member's death.

E. Cost of Living Adjustments

A member's (or beneficiary's) initial allowance is subject to annual cost-of-living adjustments ("COLAs") that account for changes in the applicable cost of living index each year. Members and beneficiaries also may receive additional "Purchasing Power Protection" when annual COLAs have been substantially eroded by inflation over time.

F. Member Contribution Rates

Members generally contribute portions of their paychecks towards the cost of their future retirement benefits. These member contributions are established in various ways, including among other by statute, ordinance and memorandum of understanding, and they vary widely based on such things as the member's employer, occupation and bargaining unit, if any. In general, member contribution rates are established as a percentage of the member's monthly compensation. With respect to member contributions established by statute under the PERL: "The Legislature reserves the right to increase or otherwise adjust the rates of [member] contribution ... in amounts and in a manner it may from time to time find appropriate." Some member contribution rates also are expressly subject to collective bargaining.

Some employers may choose to pay a portion or all of the retirement contributions otherwise required of their employees. These payments typically are negotiated during collective bargaining and the law provides that the employer may "periodically increase, reduce, or eliminate" such payments.

G. Reciprocity

The "reciprocity" provisions of the PERL (and related provisions in the retirement laws governing other California public retirement system) provide for certain reciprocal retirement benefits for a person who works for two or more public employers during his or her career, with membership in two or more California public retirement systems.

The primary purpose of reciprocity is to "eliminate[] the adverse consequences a member might otherwise suffer when moving from one retirement system to another." Reciprocity provisions accomplish this in a number a ways, including, for example, allowing a member to use his or her highest compensation in any reciprocal system to determine the compensation used to calculate benefits from all such systems.

III. Overview: Employer Funding Obligations

The California Supreme Court long ago established that a promise of a pension made by a public employer to its employees is a promise the employer must keep. In other words, public employers in California are legally required to honor promises to current and former employees regardless of how much money they have set aside for that purpose.

In order to ensure that their promises are kept, the law requires California's public employers to pre-fund the benefits they owe by making contributions to CalPERS along with the contributions of their employees. By investing the combined contributions of members and employers, CalPERS is able to pay all of the benefits as they come due.

To successfully fund all promised benefits, the law requires the Board to maintain an actuarially sound retirement fund. As one court explained: "Actuarial soundness of [CalPERS] is necessarily implied in the total contractual commitment, because a contrary conclusion would lead to express impairment of employees' pension rights." Further, employees have a vested right to statutorily required employer contributions, even where those contributions are not linked to providing an "actuarially sound" retirement system.

"...a promise of a pension made by a public employer... is a promise the employer must keep. In other words, public employers in California are legally required to honor promises to current and former employees..."

The California Constitution provides that the Board "shall [] have sole and exclusive responsibility to administer the system in a manner that will assure prompt delivery of benefits and related services to the participants and their beneficiaries" and "consistent with the exclusive fiduciary responsibilities vested in it, shall have the sole and exclusive power to provide for actuarial services in order to assure the competency of the assets of the public pension or retirement system." The Board has authority to determine an actuarially sound rate of contributions that, together with investment earnings, will "assure the competency of the assets" of CalPERS such that all promised benefits are paid now and in the future. It is the Board's exclusive responsibility to determine the contributions that will be required of the participating employers and the participating employers then have a mandatory "ministerial" duty to pay the contributions that the Board determines are necessary. This obligation will be quickly enforced by the courts, by writ of mandate, if an employer fails to meet it.

As stated by the United States Supreme Court, a defined benefit plan "is one where the employee, upon retirement, is entitled to a fixed periodic payment. The asset pool [available to pay benefits] may be funded by employer or employee contributions, or a combination of both. But the employer typically bears the entire investment risk and … must cover any underfunding as the result of a shortfall that may occur from the plan's investments."

IV. California Contract Clause as Applied to Public Employees' Retirement Benefit Rights

A "vested" benefit is one that has matured into an irrevocable contractual right, which cannot be taken away or otherwise impaired without the member's consent, except in extremely limited circumstances. A "non-vested" benefit, on the other hand, is one that has been promised conditionally. It is generally alterable or completely revocable by the appropriate authority (usually the Legislature or the employer) without the member's consent. A public employee's right to the retirement benefits earned during employment is generally a vested right.

California has a strong public policy, enunciated through published legal decisions over the past half century, establishing that public employee retirement benefits are contractual obligations entitled to the protection of the "Contract Clause" of the State Constitution. That clause, found at Article I, section 9 of the California Constitution provides: "A … law impairing the obligation of contracts may not be passed." (Article I, section 10 of the United States Constitution similarly prohibits a state from impairing the obligation of contracts.) This means that an employee's vested pension rights may not be impaired except under extremely limited circumstances.

The fundamental doctrine protecting California public employee pension rights is succinctly stated: "A public employee's pension constitutes an element of compensation, and a vested contractual right to pension benefits accrues upon acceptance of employment. Such a pension right may not be destroyed, once vested, without impairing a contractual obligation of the employing public entity."

This doctrine has been applied and refined by dozens of California appellate cases since the 1940s. Several general rules have emerged through this jurisprudence:

RULE 1:
Employees Are Entitled To Benefits In Place During Their Employment

Public employees obtain a vested right to the provisions of the applicable retirement law that exist during the course of their public employment. Promised benefits may be increased during employment, but not decreased, absent the employees' consent.

These rules apply to all active CalPERS members, whether or not they have yet performed the requirements necessary to qualify for certain benefits that are part of the applicable retirement law. For example, even if a member has not yet satisfied the five year minimum service prerequisite to receiving most service and disability benefits, the member's right to qualify for those benefits upon completion of five years of service vests as soon as the member starts work.

The courts have established that this rule prevents not only a reduction in the benefits that have already been earned, but also a reduction in the benefits that a member is eligible to earn during **future** service. For example, a ballot proposition that purported to eliminate future benefit accruals for legislators was held unconstitutional because legislators were entitled to continue earning benefits under the law in place when they were first elected.

RULE 2:
Employees Are Entitled Only to Amounts Reasonably Expected from the Contract

Vested rights protection does not extend to unreasonable or unanticipated windfalls. In other words, the Contract Clause only protects the benefits that are reasonably expected from the contract, and does not protect "unforeseen advantages."

RULE 3:
Only Lawful Contracts with Mutual Consideration Are Protected by the Contract Clause

"The contract clause does not protect expectations that are based upon contracts that are invalid, unenforceable, or which arise without the giving of consideration. Nor does the contract clause protect expectations which are based upon legal theories other than contract, such as quasi-contract or estoppel."

For this reason, it is not an "impairment of contract" for CalPERS to correct an error by a member, the member's employer or CalPERS' staff that may have resulted in more favorable treatment to the member than the law allows. The PERL specifically authorizes CalPERS to correct such errors.

RULE 4:
Future Employees Have No Vested Rights to the Current Statutory Scheme

Employees to be hired in the future do not have vested rights to any particular retirement benefits because they have not yet entered into public employment. Thus, there is no constitutional impediment to unilaterally reducing (or even eliminating) retirement benefits for new hires of public employers, even if the public employers historically have provided such benefits to their employees as part of past employment contracts.

RULE 5:
Retired and Inactive Members Have Vested Rights to the Benefits Promised to Them When They Worked

Like active employees, retirees and inactive members have a vested right to the benefits that were in place when they were employed. However, retirees and inactive members generally do not have vested rights to beneficial changes created **after** their employment terminates. This is because a "member whose employment terminated before enactment of a statute offering additional benefits does not exchange services for the right to the benefits." An exception to the general rule that benefits granted after retirement are not vested arises when the retiree or inactive member gives up another right acquired during employment in exchange for the right to receive post-employment improvements. In that case, the right to a post-employment improvement is generally a vested right.

RULE 6:

Active Employees' Vested Rights May Be Unilaterally Modified Only Under Extremely Limited Circumstances

Active public employees have a vested right to a substantial pension, but, under limited circumstances, the terms of their retirement rights may be modified before they retire. The California Supreme Court has explained: "[V]ested contractual pension rights may be modified prior to retirement for the purpose of keeping a pension system flexible to permit adjustments in accord with changing conditions and at the same time maintain the integrity of the system. Nonetheless, such modifications must be reasonable, and to be sustained as such, alterations of employees' pension rights must bear some material relation to the theory of a pension system and its successful operation, and changes in a pension plan which result in disadvantage to employees should be accompanied by comparable new advantages. Further, it is advantage or disadvantage to the particular employees whose own contractual pension rights, already earned, are involved which are the criteria by which modifications to pension plans must be measured."

There are numerous California published decisions that discuss the circumstances under which modifications to the vested rights of active employees may be permitted. There are four primary steps for determining whether a modification is permissible:

(a) The first step in determining whether a modification is permissible is to determine if the unmodified right is in fact vested, meaning neither the employer nor the Legislature reserved the right to change the benefit. This is because the applicable retirement laws often contemplate changes. Indeed, the laws sometimes expressly reserve to the employer or the Legislature the right to modify or eliminate certain benefits. A member's vested right is only to the law as it is written at the time of employment, including all of its conditions.

(b) If a vested right exists, the next step is to determine whether that vested right has been changed in a way that is disadvantageous to the member.

(c) If it is determined that a vested right has been changed in a way that is disadvantageous to a member, the next step is to determine whether the change has a "material relation to the theory of a pension system and its successful operation." If it does not, then the modification is not permissible. Case law is clear that "changes made to effect economies and save the employer money do bear some material relation to the theory of a pension system and its successful operation," but, as discussed immediately below, this finding alone is not sufficient to justify a disadvantageous change to a member's vested rights.

(d) If the change bears a "material relation to the theory of a pension system and its successful operation," the final step is to determine whether the disadvantaged employees will receive a "comparable new advantage." When a court conducts this analysis, it looks specifically at what may be taken from and provided to the individually impacted employees. This member-by-member analysis, however, does not necessarily take into account each member's unique personal circumstances. Thus, a member does not get to pick and choose which advantages or disadvantages will apply to him, and then argue that his vested rights have been unconstitutionally impaired.

RULE 7:

The State's "Emergency" Powers Are Extremely Limited and Cannot Be Used to Reduce the Benefits that Have Been Promised

The courts have carved out one narrow exception to the constitutional prohibition against the impairment of contracts, although there is no case where a court has actually applied that exception in a way that has reduced the long term costs of public retirement benefits in California. Both the California and United States Supreme Courts have held that "a substantial impairment may be constitutional if it is "reasonable and necessary to serve an important public interest" during an emergency. The courts pay little heed, however, to the "legislative assessment of reasonable and necessary," because "the State's self-interest is at stake [and a] governmental entity can always find a use for extra money, especially when taxes do not have to be raised." Thus, the courts apply a rigorous four-prong test when determining if this limited exception applies: (a) the legislative enactment must serve to protect "basic interests of society;" (b) there must be an "emergency justification for the enactment," (c) the enactment must be "appropriate for the emergency;" and (d) the enactment must be "designed as a temporary measure, during which time the vested contract rights are not lost but merely deferred for a brief period, interest running during the temporary deferment."

Thus, even if vested pension rights may be temporarily impaired in a true emergency situation, it is clear that the State's emergency powers do **not** enable it to solve its budgetary problems by eliminating or reducing the long term benefit promises it has made.

V. Federal Contract Clause as Applied to Public Employees' Rights in California

As stated above, it is clear that the "Contract Clause" of the California Constitution provides broad protections of the vested pension rights of California's public employees. Some current "reform" proposals suggest changing the State Constitution to reduce or eliminate public employee retirement benefits, in some instances even amending the Contract Clause itself. Presumably, proponents of these measures assume that by amending the State Constitution, they can avoid a constitutional challenge to their proposed impairment of vested retirement benefits. The assumption is misplaced, for two reasons:

First, if a proposed pension reform were to be enacted in the form of a constitutional amendment, it would still have to pass muster under the Contract Clause of the State Constitution. In other words, any new provision of the State Constitution would still be subject to the requirement that it not impair the obligation of contracts. Absent actually eliminating the entire Contract Clause, the fact that a pension reform measure may be adopted by way of a constitutional amendment would not assure its validity.

"Some current 'reform' proposals suggest changing the State Constitution to reduce or eliminate public employee retirement benefits...Presumably, proponents of these measures assume that by amending the State Constitution, they can avoid a constitutional challenge to their proposed impairment of vested retirement benefits. The assumption is misplaced..."

Second, even if a proposed amendment eliminated the State Constitution's Contract Clause in its entirety, *the Contract Clause in the United States Constitution would give rise to the same protection of vested pension rights* as the State Constitution. Most of the published California cases that have analyzed the constitutionality of modifying vested pension rights of public employees have not meaningfully distinguished between the Contract Clause in the California Constitution and the Contract Clause in the United States Constitution. In 1991, the California Supreme Court removed any doubt that the United States Constitution protects public employee pension rights in California to the same extent as the California Constitution, by explaining that prior case law had "never rejected the federal clause as a source of protection" and "in light of prior California decisions consistently extending federal contract clause protection to state public officers, it is simply 'too late' to retreat from the clear implication of those holdings."

Therefore, amending the California Constitution likely would not open the way to lawfully impairing vested pension rights. All of the rules discussed in Section IV above likely would still apply, no matter how the California Constitution may be amended, so long as the Contract Clause of the United States Constitution remains unchanged.

VI. CalPERS Members' Rights

Based on the legal analysis set forth above, CalPERS here articulates its understanding of the current state of vested rights law in California, as it applies to CalPERS members' benefits. Analyzing any particular member's vested rights, however, must be done on a case-by-case basis. Thus, nothing in this section is intended to express a view on any individual member's rights or any specific legislative or constitutional proposal. Further, the discussion in this section is not intended to be exhaustive, but rather to provide a general overview of our members' primary rights.

A. Vested Rights

In general, CalPERS members have vested rights to:

» Have their service retirement allowance determined based on the benefit formula that existed in the law when they provided service, if they satisfy all eligibility requirements.

» Have their retirement allowance based upon all service credit that they accrued by providing service or by purchasing service credit.

» Have their retirement allowance calculated using the definition of "final compensation" that existed in the law when they provided service.

» Have their "final compensation" determined according to the definition of "compensation earnable" that existed in the law when they provided service.

» Receive a disability allowance or an industrial disability allowance determined in accordance with the law that existed when they provided service, if the member satisfies all eligibility requirements.

» Purchase service credit under the terms that existed in the law when they provided service, if the member satisfies all eligibility requirements.

» Receive cost of living adjustments to their retirement allowance under the terms that existed in the law when they provided service. This includes "Purchasing Power Protection."

» Have their beneficiaries receive death and survivor benefits provided under the terms that existed in the law when the member provided service.

» Receive the benefits of reciprocity that existed in the law when they provided service, if they satisfy all eligibility requirements.

» Withdraw their contributions, plus accrued interest, upon separation from employment, when eligible for such a withdrawal.

» Have an actuarially sound retirement fund, which requires (a) that the CalPERS Board establish employer contribution rates sufficient to maintain the actuarial soundness of the system so that the competency of its assets is assured, and (b) that the employers timely pay those rates.

Because the above rights of CalPERS members are vested, they may only be modified if such modifications are "reasonable, and to be sustained as such, alterations of employees' pension rights must bear some material relation to the theory of a pension system and its successful operation, and changes in a pension plan which result in disadvantage to employees should be accompanied by comparable new advantages."

Finally, there remains a question as to whether vested rights may be consensually modified through collective bargaining without offending the Contracts Clause.

B. Non-Vested Rights

In general, CalPERS members do not have vested rights to:

» Benefit improvements that are granted to them after they have terminated employment (e.g., the "ad hoc" cost of living improvements granted to retirees based upon retirement date), unless such benefit improvements have been granted in exchange for a vested right that the retired members gave up voluntarily.

» Windfall benefits that arise out of circumstances that were never contemplated to be part of the employment contract.

» Payments in excess of those authorized by law, or arising from an error by the member, the member's employer or CalPERS.

» Perpetuation of the Board's discretionary actions affecting contributions and benefits. For example, the Board may change its actuarial assumptions and methodologies for calculating the cost for purchasing service credit, or for determining actuarial equivalency (for a variety of purposes). The Board has full authority to change actuarial assumptions and methodologies in the sound exercise of its discretion, and doing so does not impair any vested right, even if a change does not appear favorable to CalPERS members.

» Continuation of a benefit or contribution rate where the benefit or contribution rate is subject to change under the terms of the applicable statute, memorandum of understanding or employment contract.

» Continued employment with their employer or the continuation of the historical compensation practices of that employer, even if those practices impact the calculation of members' "compensation earnable" and "final compensation." For example, an employer may have historically paid certain premium amounts that qualify as pensionable "compensation earnable." While the member has a vested right to have such amounts included in "compensation earnable" when paid, the member does not have a vested right to continue to be paid those amounts.

Because the above rights are not "vested" under the Contract Clauses of the California and United States Constitutions, there is no constitutional impediment to the Legislature or a member's public employer (or the Board, in the case of its own discretionary acts) from unilaterally altering those rights. Unless and until such alterations are made, however, members of course have a right to receive all benefits provided to them under law. Further, other laws may limit the ability to make such alterations. For example, although specific employment practices may not be vested in perpetuity, the terms of a collective bargaining agreement must be honored during the period of that agreement's applicability.

VII. The Role of CalPERS in Protecting Members' Vested Rights

Under the State Constitution and the PERL, the Board (which is the 13-member governing body of CalPERS) has the exclusive and plenary authority and fiduciary duty to administer CalPERS in a manner that will assure prompt delivery of benefits and related services to the members and beneficiaries of the system. Board members are either elected by members of the system, appointed by State elected officials or sit ex officio.

One court explained the fiduciary duties of members of a public retirement board thusly: "[A] trustee's primary duty of loyalty is to the beneficiaries of the trust. The trustee is under a duty to the beneficiary to administer the trust solely in the interest of the beneficiary. The trustee must not be guided by the interest of any third person. This unwavering duty of complete loyalty to the beneficiary of the trust must be to the exclusion of the interest of all other parties. Under the rule against divided loyalties, a fiduciary cannot contend that although he had conflicting interests, he served his masters equally well or that his primary loyalty was not weakened by the pull of his secondary one."

The California Constitution provides: "A retirement board's duty to its participants and their beneficiaries shall take precedence over any other duty." The California Supreme Court has explained: "[P]ension plans create a trust relationship between pensioner beneficiaries and the trustees of pension funds who administer retirement benefits and the trustees must exercise their **fiduciary trust** in good faith and must deal fairly with the pensioners-beneficiaries."

The Board will act consistently with these principles. With respect to legislative and constitutional proposals that may impact its members' vested rights, the Board will exercise its best judgment and act appropriately under all existing circumstances. In doing so, the Board will observe certain general guidelines, including:

- CalPERS will make reasonable efforts to keep its members and beneficiaries apprised of changes or potential changes to the law that may impact their rights and responsibilities.
- CalPERS will ensure that funds spent in any process relating to potential changes in funding or benefit structures are appropriate expenditures of trust funds under Article XVI, section 17 of the California Constitution and other applicable law.
- CalPERS' actions will be carried out in a manner that implements the law. In the event CalPERS questions whether changes in the PERL or other applicable law may cause an unconstitutional impairment of its members' vested rights, CalPERS will exercise its best judgment, based on all existing circumstances, as to whether to initiate or participate in judicial challenges to such changes.

VIII. Conclusion

CalPERS is dedicated to administering the system in a manner that will ensure that the promises made to CalPERS' members and beneficiaries will be kept. CalPERS acknowledges the budgetary challenges that the State and other public agencies throughout California are presently facing, and will play an appropriate role in the addressing these challenges. In this process, it will be vitally important for all interested parties to heed the legal rules protecting the vested rights of CalPERS' members, which have developed over the course of many decades. Without due consideration of these rules, well-intentioned proposals may not achieve the purposes for which they are designed; indeed, they may lead only to additional litigation and administrative costs, which can only increase the long term cost of delivering the benefits that have been promised to CalPERS members. It is the hope of CalPERS that this paper will provide guidance to all parties as they address these challenges.

CalPERS | Legal Office

California Public Employees' Retirement System
400 Q Street
P.O. Box 942701
Sacramento, CA 94229-2701
(916) 795-3991
(916) 795-3507 fax
TTY: (916) 795-3240

EXHIBIT 2

California Public Employees' Retirement System
External Affairs Branch • Office of Public Affairs
400 Q Street, Sacramento, CA 95811
(916) 795-3991 phone • (916) 795-3507 fax
www.calpers.ca.gov

FACTS AT A GLANCE

April 2014

Facts at a Glance is a compilation of monthly information of interest to Board Members, staff, and the general public. Every effort has been made to verify the accuracy of the information, which is intended for general use only.

OVERVIEW

OVERALL MEMBERSHIP (AS OF JUNE 30, 2013)

Retirees/beneficiaries/survivors receiving a monthly allowance:	574,759
Active & Inactive members:	1,104,237
Total members:	1,678,996

MEMBERSHIP TOTALS BY CATEGORY (ACTIVE/INACTIVE MEMBERS AS OF JUNE 30, 2013)

State employees	30.3%
School employees	39.0%
Local public agency employees	30.7%

$3.9 billion in employee contributions $8.1 billion in employer contributions

PENSION INFORMATION (AS OF JUNE 30, 2013)

Average monthly service retirement allowance all retirees:	$2,629
Average years of service, all service retirees:	20.5

PENSION INFORMATION (FISCAL YEAR 2012-13 RETIREES)

Average monthly service retirement for retirees:		$2,945
Average monthly service retirement allowance for school misc. members:		$1,675
Average years of service school misc. retirees:		17.7
Average monthly service retirement allowance for State misc. members:		$2,918
Average years of service State misc. retirees:		23.1
Average age at retirement, all members:	Service:	60
	Disability:	56
	Industrial Disability:	50

SERVICE RETIREES BY EMPLOYER TYPE (AS OF JUNE 30, 2013)

FISCAL YEAR	EMPLOYER: STATE	EMPLOYER: SCHOOLS	EMPLOYER: PUBLIC AGENCY	TOTAL	% CHANGE FROM PRIOR YEAR'S TOTAL
FY 2006–07	7,528	7,581	7,834	22,943	-6.8%
FY 2007–08	8,105	7,348	7,847	23,300	1.6%
FY 2008–09	8,502	7,690	8,366	24,558	5.4%
FY 2009–10	10,734	9,449	9,936	30,119	22.6%
FY 2010–11	11,566	10,334	10,730	32,630	8.3%
FY 2011–12	10,296	9,775	9,928	29,999	-8.1%

CALPERS EMPLOYERS (AS OF JUNE 30, 2013)

Public Agencies	1,581
School Districts	1,508
Total:	3,089

BOARD OF ADMINISTRATION

CalPERS is governed by a 13-member Board of Administration. Visit CalPERS On-Line for Board structure, composition and responsibilities.

NUMBER OF CALPERS EMPLOYEES (AS OF MARCH 31, 2014)

2,696*

**Total number of authorized positions as approved by the CalPERS Board of Administration*

CALPERS TOTAL ONE BUDGET

	FY 2013-14 Approved Budget[1] ($Millions)
Administrative Operating Costs	$425.2
Investment Operating Costs	$84.4
Total Operating Costs[2]	**$509.6**
Enterprise Projects	$33.3
Headquarters Building Costs	$40.7
Subtotal	**$583.6**
Investment External Management[3]	$1,030.0
Third Party Administrator Fees[4]	$274.5
CalPERS Total Budget	**$1,880.0**

[1] FY 2013-14 midyear budget approved by CalPERS Board of Administration on December 18.

[2] Effective FY 2014-15, investment related expenses are now reflected with all CalPERS Administrative Operating Costs.

[3] Investment External Management Fees consist of both Base Fees and Performance Fees

[4] Third Party Administrator Fees for FY 2013-14 include six month projections of $159.7 million based on fees approved by the board for financial reporting comparisons which are for the newly implemented self-funded health plans with an effective start date of January 1, 2014

FUNDING STATUS

ACTUARIAL INFORMATION

Each year, CalPERS actuaries calculate a funded ratio—the ratio of market value of assets in the fund to the liabilities for each retirement plan. The funded ratios vary from year to year.

Funded Status of Retirement Plans by Member Category

Member Category	6/30/08	6/30/09	6/30/10	6/30/11	6/30/12
State	84.9%	58.4%	62.8%	70.3%	66.1%
School	93.8%	65.0%	69.5%	78.7%	75.5%
Public Agency	89.6%	60.0%	65.8%	74.3%	68.9%

Notes

- The funded ratios are based on the Market Value of Assets.
- There were five plans in the State category with funded ratios between 60 percent and 73 percent as of June 30, 2012. The funded ratio for the State is an aggregate of all five plans.
- As of June 30, 2013, there were 3,090 plans with active members in the public agency category.

INCOME TOTALS OVER THE PAST 10 FISCAL YEARS

YEAR	MEMBER CONTRIBUTIONS	EMPLOYER CONTRIBUTIONS	INVESTMENT AND OTHER INCOME
2012–13	$3,896,078,000	$8,123,833,000	$30,284,807,000
2011–12	$3,598,437,000	$7,772,913,000	-$196,014,000
2010–11	$3,600,089,338	$7,465,397,498	$43,907,435,683
2009–10	$3,378,866,892	$6,955,049,078	$25,577,529,796
2008–09	$3,882,355,341	$6,912,376,563	-$57,363,897,989
2007–08	$3,512,074,936	$7,242,802,001	-$12,492,908,035
2006–07	$3,262,699,076	$6,442,383,868	$40,757,380,692
2005–06	$3,080,878,521	$6,095,029,424	$22,041,265,666
2004–05	$3,176,780,369	$5,774,120,281	$21,894,201,526
2003–04	$2,266,445,429	$4,261,347,422	$24,272,573,281
2002–03	$1,887,925,497	$1,925,043,858	$5,482,731,568

INVESTMENT PORTFOLIO MARKET VALUE

$277.6 billion (as of January 31, 2014)

ASSET CLASS BY MARKET VALUE & ALLOCATION

ASSET CLASS	ACTUAL INVESTMENT ($BILLIONS)	ACTUAL INVESTMENT %	INTERIM STRATEGIC TARGET %*
Growth	$181.1	65.2%	64.0%
Public Equity	$150.5	54.2%	50.0%
Private Equity	$30.6	11.0%	14.0%
Income	$41.4	14.9%	17.0%
Liquidity	$11.5	4.1%	4.0%
Real Assets	$27.8	10.0%	11.0%
Real Estate	$24.2	8.7%	9.0%
Forestland/ Infrastructure	$3.6	1.3%	2.0%
Inflation	$9.3	3.4%	4.0%
Absolute Return Strategy	$5.3	1.9%	N/A%
Multi Asset Class	$1.1	0.4%	N/A%
Total Fund	$277.6	100.0%	100.0%

**Target allocation effective July 2011.*

GROWTH OF FUND

YEAR	YEAR-END 6/30	YEAR-END 12/31
1985	$28.6 billion	$32.7 billion
1990	$58.2 billion	$57.5 billion
1995	$87.8 billion	$96.9 billion
1996	$100.7 billion	$108.0 billion
1997	$119.7 billion	$128.2 billion
1998	$143.3 billion	$150.6 billion
1999	$159.1 billion	$171.9 billion
2000	$172.2 billion	$165.2 billion
2001	$156.0 billion	$151.8 billion
2002	$143.4 billion	$133.8 billion
2003	$144.8 billion	$161.4 billion
2004	$166.3 billion	$182.8 billion
2005	$189.8 billion	$200.9 billion
2006	$208.2 billion	$230.3 billion
2007	$251.4 billion	$253.0 billion
2008	$237.9 billion	$183.3 billion
2009	$181.0 billion	$203.3 billion
2010	$200.0 billion	$225.7 billion
2011	$237.5 billion	$225.0 billion
2012	$233.4 billion	$248.8 billion
2013	$257.9 billion	$283.5 billion

TOTAL RETURNS[1]

Fiscal year to date ended 6/30/2013	13.2%
3 years for period ended 6/30/2013	11.3%
5 years for period ended 6/30/2013	3.5%
10 years for period ended 6/30/2013	7.1%

HISTORICAL RATES OF RETURNS[1]

YEAR	YEAR END 6/30 (%)	YEAR END 12/31 (%)
1990	8.9	-0.8
1991	6.7	23.0
1992	13.9	6.5
1993	14.6	13.4
1994	2.0	-1.0
1995	16.4	25.3
1996	15.4	12.8
1997	20.2	19.0
1998	19.6	18.5
1999	12.6	16.0
2000	10.8	-1.4
2001	-7.1	-6.2
2002	-6.0	-9.5
2003	3.9	23.3
2004	16.7	13.4
2005	12.6	11.1
2006	12.3	15.7
2007	19.1	10.2
2008	-4.9	-27.8
2009	-23.4	12.1
2010	11.6	12.6
2011[1]	20.9	1.1
2012	1.0	13.3
2013	13.2	16.2

[1] *Beginning 9/30/2011 performance figures are reported as net of fees. All performance figures reported before 9/30/2011 are as gross of fees. Fiscal year-end and calendar year-end returns reported in Facts at a Glance include private equity and real assets returns which are reported on a one-quarter lag. This data is diffent from what is reported in the Comprehensive Annual Financial Report, which includes non-lagged assets for private equity and real assets.*

CALIFORNIA INVESTMENTS AND COMMITMENTS

Approximately $26.5 billion—or 9.2 percent of total fund as of January 31, 2014

ASSET CLASS	ACTUAL INVESTMENT ($BILLIONS)
PUBLIC EQUITY*	$12.2
PRIVATE EQUITY	$5.1
INCOME	$3.0
REAL ESTATE**	$6.1
INFRASTRUCTURE**	$0.1
OTHER***	$1.1
TOTAL FUND	$26.5

** Due to reporting constraints, Private Equity is as of June 30, 2013*
*** Due to reporting constraints, Real Estate and Infrastructure are as of October 31, 2013*
**** "Other" consists primarily of Forestland, Inflation, Absolute Return Strategies, and Liquidity*

HEALTH BENEFITS

CALPERS HEALTH PROGRAM

- Covers more than 1.3 million active and retired State, local government, and school employees and their family members
- Purchases health benefits for the State of California and more than 1,100 local and government agency and school employers
- Largest public employer purchaser of health benefits in California and the second largest employer purchaser in the nation after the federal government
- Spent more than $7.51 billion in 2013 to purchase health benefits

HEALTH CARE PLANS

- Six Health Maintenance Organization (HMO) plans – Anthem Blue Cross, Blue Shield of California, Health Net, Kaiser Permanente, Sharp and United Healthcare
- Two Exclusive Provider Organization (EPO) plans – Anthem Blue Cross and Blue Shield of California
- Three self-funded Preferred Provider Organization (PPO) plans administered by Blue Cross – PERS Select, PERS Choice and PERSCare
- Three plans for Association members – California Association of Highway Patrolmen (CAHP) Health Benefits Trust, California Correctional Peace Officers Association (CCPOA) and Peace Officers Research Association of California (PORAC)

HEALTH PLAN MEMBERSHIP (AS OF JANUARY 2014)

ENROLLMENT	EMPLOYEES	DEPENDENTS	TOTAL MEMBERS
State Employees — **57.72%**			
State Active	212,081	324,445	536,526
State Retired	166,669	110,398	277,067
State Total	**378,750**	**434,843**	**813,593**
Public Agencies (Local Government & School Employees) — **42.28%**			
Public Agency Active	180,356	242,289	422,645
Public Agency Retired	97,042	51,689	148,731
Public Agency Total	**277,398**	**293,978**	**571,376**
Active – **59.81%**	392,437	566,734	959,171
Retired – **40.19%**	263,711	162,087	425,798
HMO – **67.83%**	433,653	505,796	939,449
PPO – **25.04%**	189,144	157,633	346,777
Associations – **7.13%**	33,351	65,392	98,743
Total Program	**656,148**	**728,821**	**1,384,969**

ANNUAL HEALTH PROGRAM SPENDING (PER DAY)

2012	$19.3 million
2011	$18.5 million
2010	$16.8 million

TOTAL HEALTH PREMIUM				STATE PREMIUM SHARE ESTIMATES			
				Actives		Retirees	
Estimates (in Billions)	Total Program	Public Agencies and Schools	State	Employer	Member	Employer	Member
2012	$7.03	$2.94	$4.09	$2.234	$0.587	$1.218	$0.049
2011	$6.75	$2.82	$3.93	$2.153	$0.547	$1.190	$0.046
2010	$6.12	$2.52	$3.60	$2.003	$0.496	$1.054	$0.047
State contribution amounts to monthly premiums for single, 2-party and family plan tiers, respectively			2012	$452/$905/$1,177*		$566/$1,074/$1,382	
			2011	$433/$866/$1,129*		$542/$1,030/$1326	
			2010	$393/$787/$1,024*		$493/$936/$1,202	

**State Active Health Premium Contribution for many State Members, but not all. Please check specific contract for exact detail.*

HEALTH PREMIUM CHANGES — 2004 TO 2012

PLAN PRODUCT & TYPE		2004	2005*	2006*	2007*	2008*	2009*	2010*	2011*	2012*
Basic Plans	Overall	16.4%	9.9%	8.9%	11.9%	6.8%	4.8%	3.2%	9.9%	4.6%
	HMOs	18.0%	11.4%	8.7%	11.6%	7.4%	6.6%	3.4%	10.6%	5.3%
	PPOs	13.2%	6.4%	9.5%	12.6%	4.2%	0.0%	3.3%	8.7%	3.0%
	Associations	11.6%	6.8%	8.3%	12.8%	10.8%	5.0%	0.9%	7.2%	2.7%
Medicare Plans	Overall	10.0%	-11.3%	7.0%	13.5%	3.0%	0.7%	1.1%	3.4%	0.0%
	HMOs	26.8%	-10.7%	-7.0%	25.0%	-1.6%	1.6%	0.3%	0.2%	-0.9%
	PPOs	-1.2%	-12.5%	18.6%	6.8%	6.7%	0.0%	1.7%	5.6%	0.7%
	Associations	15.0%	0.5%	0.0%	0.2%	-2.3%	1.3%	2.5%	4.2%	0.9%

**Premium changes for public agencies vary depending on geographic location.*

CALPERS LONG-TERM CARE PROGRAM

- Provides financial protection from the high cost of extended care, including nursing home care; CalPERS program is not-for-profit and self-funded; began in January 1995
- All California public employees, retirees, their spouses, parents and parents-in-law, and adult siblings (age 18-79) are eligible to apply during enrollment periods
- Members enrolled as of June 30, 2013 – 144,936
- More than $1.2 billion in benefits paid since the program's inception through June 30, 2013
- Benefits paid through June 30, 2013 – $98.2 million
- Premiums received from January 1, 2013 through June 30, 2013 – $318.7 million
- Average premium collected from January 1, 2013 through June 30, 2013 – $2,199.42

SYSTEM AND FUNDS

LEGISLATORS' RETIREMENT SYSTEM (LRS)

The LRS is available to members of the California Legislature serving prior to November 7, 1990; all elected constitutional officers and legislative statutory officers. (This system was closed to Legislators after November 7, 1990, by virtue of an initiative passed by the electorate).

Active Membership (as of June 30, 2013)	
Members of the Legislature:	1
Constitutional officers:	10
Legislative statutory officers:	0
Total:	11

Inactive Membership (as of June 30, 2013)	
Members of the Legislature:	6
Constitutional officers:	7
Legislative statutory officers:	4
Total:	17

Retirees, Survivors & Beneficiaries (as of March 31, 2014)	
Total:	247

Benefit Payments: Fiscal year to date (as of March 31, 2014)	
Total:	$5,591,015

JUDGES' RETIREMENT SYSTEM (JRS)

The JRS provides benefits for State Supreme and Appellate Court justices, and Superior Court and Municipal Court judges who were appointed or elected before November 9, 1994.

Membership (as of June 30, 2013)	
Active:	319
Inactive:	6
Total:	325

Retirees, Survivors & Beneficiaries (as of March 31, 2014)	
Total:	1,900

Benefit Payments: Fiscal year to date (as of March 31, 2014)	
Total:	$138,747,877

JUDGES' RETIREMENT SYSTEM II (JRS II)

Established in 1994, JRS II provides benefits for State Supreme and Appellate Court justices, Superior Court judges, and Municipal Court judges who were appointed or elected after November 9, 1994.

Membership (as of June 30, 2013)	
Active Members	1,352
Retirees, Survivors & Beneficiaries (as of March 31, 2014)	
Total:	66
Benefit Payments: Fiscal year to date (as of March 31, 2014)	
Total:	$3,954,724

CALIFORNIA EMPLOYERS' RETIREE BENEFIT TRUST FUND

The California Employers' Retiree Benefit Trust Fund was established by CalPERS in March 2007 to provide California public agencies with a cost-efficient, professionally managed investment vehicle for prefunding other post-employment benefits (OPEB) such as retiree health benefits. Prefunding reduces an agency's long-term OPEB liability. Participating agencies can use investment earnings to pay future OPEB liabilities, similar to the CalPERS pension fund in which three out of four dollars paid in retirement benefits come from investment earnings. As of February 28, 2014:

Agencies added: City of Indio, Fresno Unified School District, North of the River Municipal Water District, San Gabriel Valley Mosquito and Vector Control District, and San Francisco County Superior Court

Assets under management in trust fund: $3.4 billion

Participating public agencies: 394

CALPERS 457 PLAN

The CalPERS Supplemental Income 457 Plan is a deferred compensation retirement savings plan that public agency and school employers may adopt and offer to their employees to help them reach their retirement income goals. As of February 28, 2014:

- 26,844 participants
- $1.230 billion in total assets
- 741 contracting agencies

PEACE OFFICERS' AND FIREFIGHTERS' (POFF) DC PLAN

The State Peace Officers' & Firefighters (POFF) Supplemental Plan is an employer-provided retirement benefit negotiated between the State of California and employee groups. As of February 28, 2014:

- 34,398 participants
- $509 million in total assets

SUPPLEMENTAL CONTRIBUTIONS PLAN

The Supplemental Contributions Plan is an after-tax supplemental contributions program available to State employees, and members of the Judges' Retirement System I and II. As of February 28, 2014:

- 538 participants
- $20.4 million in total assets invested
- $12,811 total monthly contributions

CALPERS GLOBAL GOVERNANCE PROGRAM

For corporate governance and additional investment information, please visit our Global Governance website.

STATE LEGISLATION

CalPERS Governmental Affairs Office provides bill analyses and tracks current status of important State legislation. Visit our legislation information page for more details.

EXHIBIT 3

California BALLOT PAMPHLET

General Election

November 3, 1992

CERTIFICATE OF CORRECTNESS

I, March Fong Eu, Secretary of State of the State of California, do hereby certify that the foregoing measures will be submitted to the electors of the State of California at the GENERAL ELECTION to be held throughout the State on November 3, 1992, and that this pamphlet has been correctly prepared in accordance with law.

Witness my hand and the Great Seal of the State in Sacramento, California, this 10th day of August 1992.

March Fong Eu

MARCH FONG EU
Secretary of State

Secretary of State

SACRAMENTO 95814

Dear Californians:

This is your California Ballot Pamphlet for the November 3, 1992, General Election. It contains the ballot title and a short summary provided by the Attorney General, the Legislative Analyst's analysis and an overview of the state bond debt, the pro and con arguments and rebuttals, and the complete texts for Propositions 155 through 167. It also contains the legislative votes cast for and against each measure proposed by the Legislature. Should any other measures be added to the ballot at a later date, materials relating to them will be sent in a supplemental ballot pamphlet. This election, at the suggestion of the California Commission on Campaign Financing, a private, non-profit organization, we are also including summary information regarding the measures. Statements from political parties about their philosophies and purposes are also included.

Many rights and responsibilities go along with citizenship. Voting is one of the most important, as it is the foundation on which our democratic system is built. Read carefully all of the measures and information about them contained in this pamphlet. Legislative propositions and citizen-sponsored initiatives are designed specifically to give you, the electorate, the opportunity to influence the laws which regulate us all.

Take advantage of this opportunity and exercise your rights by voting on November 3, 1992.

Please note that Proposition 155 is the first proposition for this election. To avoid confusion with past measures, the Legislature passed a law which requires propositions to be numbered consecutively starting with the next number after those used in the November 1982 General Election. This numbering scheme runs in twenty-year cycles.

162 Public Employees' Retirement Systems. Initiative Constitutional Amendment.

Official Title and Summary Prepared by the Attorney General

PUBLIC EMPLOYEES' RETIREMENT SYSTEMS. INITIATIVE CONSTITUTIONAL AMENDMENT.

- Grants the board of a public employee retirement system sole and exclusive authority over investment decisions and administration of the system.
- Requires board to administer system so as to assure prompt delivery of benefits to participants and beneficiaries.
- Provides that board's duty to participants and beneficiaries takes precedence over any other duty.
- Grants board sole and exclusive power to provide for actuarial services.
- Prohibits changing number, terms, and method of selection or removal of members of board without approval of voters of the jurisdiction in which participants of the retirement system are employed.

Summary of Legislative Analyst's Estimate of Net State and Local Government Fiscal Impact:

- Unknown fiscal effect from giving public pension boards complete authority over assets and administration of the systems.
- Potential costs to employers as a result of public pension system giving highest priority to providing benefits to members and their beneficiaries.
- Annual savings of $1 million to $3 million to the state's Public Employees' Retirement System for actuarial services.

Analysis by the Legislative Analyst

Background

Public pension systems in California provide retirement benefits to a wide range of state and local government employees—such as teachers, firefighters, and police officers. The largest of these pension systems are the state's Public Employees' Retirement System (PERS) and the State Teachers' Retirement System (STRS). In addition, there are over 100 other public retirement systems that serve counties, cities, special districts, and the University of California.

Funds for payment of retirement benefits under these public retirement systems come from assets held in trust by each system's governing board. These assets include contributions from employees and employers, plus income earned on the investment of these contributions. The members of many public retirement systems elect some members of their governing boards. The State Constitution requires each board to use fund assets to: (1) provide benefits to members of the system and their beneficiaries, (2) minimize employer contributions, and (3) pay reasonable administrative costs.

The Constitution specifies the general authority and responsibilities of public pension systems. Within these limits, the Legislature can change various administrative functions and activities of public pension systems. For example, recent legislation removed the actuarial function from the PERS Board and placed this function under a State Actuary appointed by the Governor and confirmed by the Legislature. (A primary function of the actuary is to determine the employer's annual contribution rate.) In addition, recent legislation also allowed the use of certain PERS assets to offset employer contribution costs.

Proposal

This measure makes several changes to constitutional provisions related to public retirement systems:

- It gives the board of each public pension system complete authority for administration of the system's assets and for the actuarial function. (This would have the effect of returning the PERS actuarial function to the PERS Board.)
- Each board must continue to provide benefits to members of the system and their beneficiaries, minimize employer contributions, and pay reasonable administrative costs. The measure, however, specifies that each board is to give *highest* priority to providing benefits to members and their beneficiaries.
- The measure specifies that the Legislature cannot change terms and conditions of board membership (for boards with elected employee members) unless a majority of the persons registered to vote in the jurisdiction of the retirement system approves the change. For example, a change in a county retirement system's board membership would require a countywide vote.

Fiscal Effect

The measure could have the following fiscal impacts on state and local governments.

Administration of Assets. Giving complete authority for administration of public retirement system assets to the governing boards could reduce oversight of these activities by state or local government. This would have an unknown effect on the costs of the systems.

Actuarial Responsibilities. The boards of most public retirement systems have the responsibility for the actuarial function. As noted above, the responsibility for this service for PERS was recently transferred to an actuary appointed by the Governor. By returning the function to PERS, this measure would have two fiscal effects. First, there would be annual savings in the range of $1 million to $3 million, as it appears that PERS can now perform the task at less cost than an outside actuary. These savings would be realized by all the public employers in the PERS system. Second, there would be an unknown effect on the cost of employer contributions resulting from potentially different assumptions by an actuary responsible to the PERS Board, rather than the Governor.

Board Responsibility to Pension Members. The requirement that pension system boards give highest priority to providing benefits to members and their beneficiaries could result in higher costs to employers. As discussed above, providing benefits is currently one of three basic, and equal, responsibilities of the pension boards. Placing benefits as the highest priority could result in higher costs to employers if board decisions increase benefits without equal consideration to the cost for those benefits. These potential costs are unknown, and are dependent on future decisions of pension system boards.

Vote on Legislative Changes. The provision requiring a vote within the jurisdiction of a pension system to approve legislative changes to the pension system board could result in increased election-related costs. The average annual costs for these elections, however, probably would not be significant.

For text of Proposition 162 see page 70

162 Public Employees' Retirement Systems. Initiative Constitutional Amendment.

Argument in Favor of Proposition 162

Do you believe politicians should be able to raid the pension funds of retirees?

That's exactly what they have done—and will continue to do—unless we pass PROPOSITION 162.

A YES vote on PROPOSITION 162 will prevent politicians from raiding the pension funds of firefighters, police officers and other active and retired public employees.

It's not right to allow politicians to balance their budgets on the backs of seniors and retirees. For many retirees who have worked hard all of their lives, their only source of dignity and security is the pension they earned. They depend on those pensions to survive.

It is morally wrong and unfair to take that away from them. But politicians keep doing it.

And let's face it—if the politicians are allowed to raid public pension funds today, private pension funds will be next. The big difference is that taxpayers are ultimately responsible for public pensions. And that means taxpayers will be socked if huge future tax increases are needed to pay back *tomorrow* the funds politicians loot from public pension funds *today*.

That's why senior citizens, taxpayer groups and active and retired people throughout California are united in support of PROPOSITION 162.

Is it any wonder that more than 1.2 MILLION of our neighbors signed petitions to place PROPOSITION 162 on the ballot?

The politicians won't do the right thing, but we can! Vote YES on PROPOSITION 162.

CHARLES CARBONARO
Chairman, California State Legislative Committee American Association of Retired Persons (AARP)

PETER J. KANELOS
Executive Director, REsponsible VOters for Lower Taxes (REVOLT)

CLIFFORD F. HASKELL
Retired Firefighter

Rebuttal to Argument in Favor of Proposition 162

PROPOSITION 162 DOESN'T PROVIDE ADDITIONAL PROTECTION AGAINST PENSION RAIDS.

The California Constitution already protects public pensions. And the idea that only "politicians" raid pensions is ludicrous: State retirement boards took nearly a billion dollars out of state pension investments in the 1980s, to fund a special reserve account. Proposition 162 does nothing to stop these bureaucrats from conducting their own "raids."

PROPOSITION 162 IS TOO RISKY.

The state pension board has already been caught making bad investments: they have invested millions in junk bonds and speculated in risky real estate ventures. Proposition 162 would give these boards even more independence. That's a risk we are simply not prepared to take.

PROPOSITION 162 ENDS TAXPAYER OVERSIGHT.

Pension boards currently have to balance the interests of taxpayers with those of retirees. This is only fair, since nearly $5 billion a year in tax dollars go toward public pension funds. Proposition 162 destroys this balance, and instead requires pension boards to make increased benefits their number one priority, regardless of taxpayer cost. Next, Proposition 162 takes away nearly all authority of the executive and legislative branches to oversee pension board decisions. So taxpayers would have no way to keep these boards accountable for their actions.

REJECT THE SLICK CLAIMS BEHIND PROPOSITION 162. PROTECT PENSIONS AND TAXPAYERS BY VOTING NO ON 162.

RICHARD GANN
President, Paul Gann Citizens Committee

LARRY McCARTHY
President, California Taxpayers Association

Public Employees' Retirement Systems. Initiative Constitutional Amendment. 162

Argument Against Proposition 162

Proposition 162 doesn't protect pensions, it protects the bureaucrats who have failed to curb rampant fraud and abuse in state and local government retirement systems.

Voting NO on Proposition 162 is the only way to PROTECT PENSIONS AND TAXPAYERS.

State auditors in 1990 found pension abuse in 75% of cities studied—including one case where a former city manager was collecting a $139,000 annual pension when his top salary was only $89,000. The Legislature quickly authorized state pension officials to hire six new auditors—but more than a year later, NOT ONE NEW AUDITOR HAD BEEN HIRED.

STATE RETIREMENT BOARD MEMBERS INVESTED IN JUNK BONDS, ACCEPTED TRAVEL JUNKETS AND WERE WINED AND DINED BY SPECIAL INTERESTS, AND FAILED TO SPOT OUTRAGEOUS FRAUD.

Proposition 162 would give the bureaucrats at the heart of this scandal more independence and more power—and make it harder for taxpayers to ensure these retirement funds are properly managed.

PROPOSITION 162 ENDS TAXPAYER OVERSIGHT OF STATE RETIREMENT BOARDS. Last year, in the middle of a recession and a budget crisis, the PERS board voted to pay its top bureaucrat $110,000 a year. The State Controller blocked this pay increase, but would have no authority to stop other outrageous salary hikes if Proposition 162 becomes law.

Proposition 162 would end the mandatory use of outside independent experts—called actuaries—to review the amount of money taxpayers pay into the state retirement system. Proposition 162 would take away this independent voice in determining taxpayer contributions to the nation's largest pension fund. THAT'S JUST TOO RISKY.

And Proposition 162 also dictates that retirement boards alone would have absolute authority to determine the amount of money taxpayers must contribute to state, school and local government retirement funds each year. Retirement boards would be able to demand from taxpayers excessive contributions when the retirement system is overfunded. And in future budget crises, retirement costs could soar while vital public services are cut to the bone.

BY TAKING MORE TAX DOLLARS THAN NECESSARY, RETIREMENT BOARDS COULD FORCE MORE TAX INCREASES ON CALIFORNIA.

The interests of taxpayers and state and local government retirees are balanced carefully under current law. But Proposition 162 upsets that balance, and the taxpayers end up losing.

Proposition 162 requires retirement boards to make providing or increasing benefits their number one priority, regardless of the costs to the taxpayers. A majority of contributions to the pension fund comes from the taxpayers each year. PROPOSITION 162 WOULD REQUIRE A PENSION BOARD TO DISREGARD THE INTERESTS OF TAXPAYERS.

Bureaucrats have long employed scare tactics to get more money from the taxpayers, and Proposition 162 is based upon a colossal and phony claim that public pension funds are at risk. They are not. State and local government pensions are already protected by California's Constitution. And this initiative does not change any existing constitutional protections of retirement funds.

Vote no on Proposition 162.

LARRY McCARTHY
President, California Taxpayers' Association

RICHARD L. GANN
President, Paul Gann's Citizens Committee

Rebuttal to Argument Against Proposition 162

Opponents of Proposition 162 are trying to mislead the voters.

The central purpose of this measure is to STOP POLITICIANS FROM USING PUBLIC PENSION FUNDS TO BAIL THEM OUT WHEN THEY FAIL TO KEEP GOVERNMENT SPENDING UNDER CONTROL. Pension funds should be used to provide promised benefits for retired workers, not as a slush fund for politicians.

Proposition 162 has nothing to do with auditors who investigate alleged pension abuse. In fact, state pension officials were unable to hire more auditors because the politicians delayed funding for the positions.

Nor does Proposition 162 have anything to do with retirement benefit levels. Only legislative bodies elected by voters and voters themselves have the power to set benefit levels.

PROPOSITION 162 does have something to do with taxes. It *prevents taxpayers from being gouged in the future to pay back pension money looted by politicians.*

Seniors and taxpayer groups who have carefully read Proposition 162 agree that *the real issues are protecting pension funds and taxpayer dollars.*

Pension fund security is crucial to retired workers who are struggling to pay for food, shelter and health care.

And ***preventing pension raids is crucial to all taxpayers to avoid future tax increases*** that would be needed to pay back the money taken by politicians.

Because politicians have repeatedly tried to loot hundreds of millions of dollars from public pension systems. Proposition 162 is needed to KEEP POLITICIANS' HANDS OUT OF THE TILL.

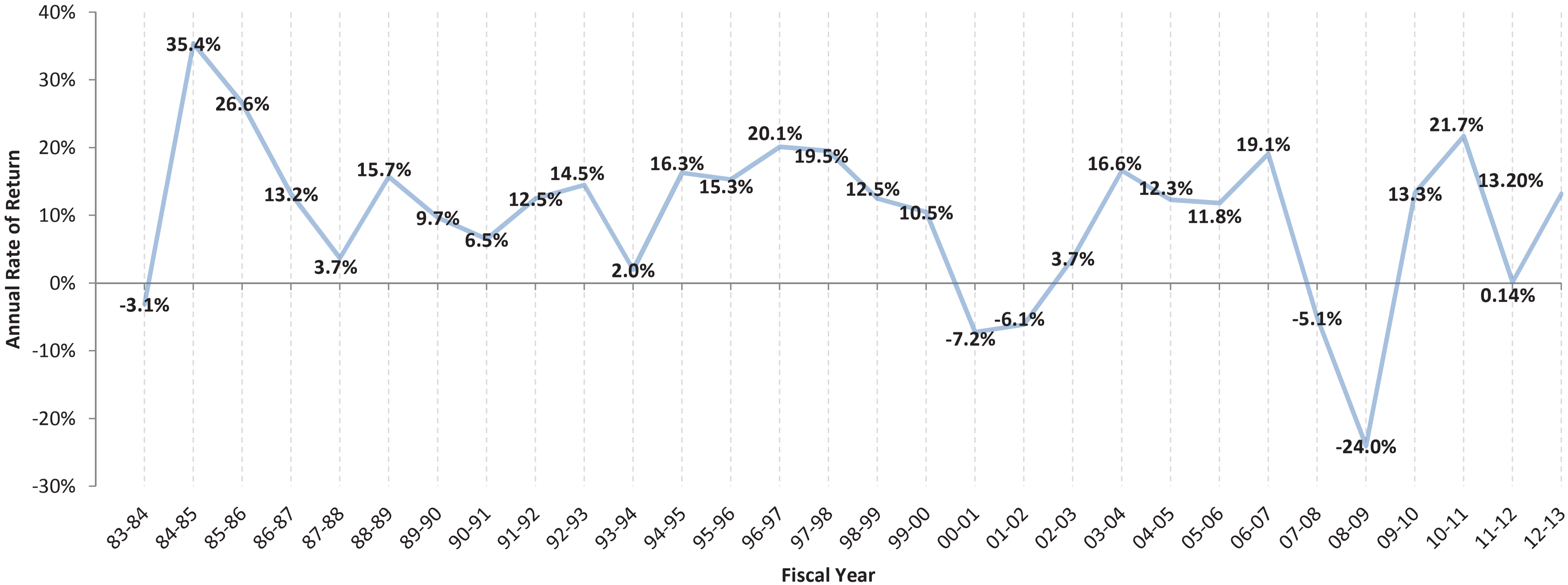
Vote Yes on Proposition 162.

DERRELL KELCH
President, California Seniors Coalition

PETER J. KANELOS
Executive Director, REsponsible VOter for Lower Taxes (REVOLT)

EXHIBIT 4

Historical Annual Rates Of Return for the California Public Employees Retirement Fund
(Fiscal Year 1983-84 to 2012-13)



Data Source - CalPERS Comprehensive Annual Financial Reports (1984 - 2013)

EXHIBIT 5

STATE OF CALIFORNIA
BOARD OF ADMINISTRATION
PUBLIC EMPLOYEES' RETIREMENT SYSTEM

RESOLUTION

No. ACT-96-05E (Rev.)

Subject: **Actuarial Policies - Amortization & Smoothing Policy**

WHEREAS, 1. In accordance with Government Code section 20120, the Board of Administration of the California Public Employees' Retirement System (the "Board") is vested with the management and control of the Public Employees' Retirement System (the "System").

WHEREAS, 2. Under Article XVI, Section 17 of the California Constitution (the "Constitution"), the Board has plenary authority and fiduciary responsibility for the investment of monies and administration of the System. The Constitution also vests the Board with the sole and exclusive power to provide for actuarial services in order to assure the competency of the System.

WHEREAS, 3. In furtherance of its sole and exclusive duty to make actuarial determinations under Section 17, the Board has hired a Chief Actuary to advise the Board and to direct the activities of the System's professional actuarial staff.

WHEREAS, 4. Also in furtherance of its sole and exclusive duty to make actuarial determinations, the Board has retained the services of an outside consulting actuarial firm, to review the work of the System's actuarial staff and to certify that such work satisfies professional actuarial standards.

WHEREAS, 5. Both the Board's Chief Actuary and its consulting actuary have advised the Board to adopt specific written policies regarding the actuarial practices that are most prudent for the System.

NOW THEREFORE BE IT RESOLVED:

(A) It is the policy of the Board to use professionally accepted amortization methods to eliminate unfunded liabilities or surpluses in a manner that maintains benefit security for the members of the System while minimizing substantial variations in employer contribution rates.

(B) To accomplish this goal, the Board hereby adopts an amortization method which amortizes different portions of the total unfunded liability or surplus over different periods of time, depending upon the type of event that created the particular portion of the unfunded liability or surplus, specifically as follows:

(1) For the June 30, 2012 valuation, the annual contribution amount with regard to gains and losses shall be determined as the dollar amount (increasing each year by the overall payroll increase assumption adopted by the Board) required to amortize the accumulated amount of unamortized gains and losses as of the valuation date over a period of thirty years (i.e. rolling thirty year fresh start).

The provisions of this paragraph (B)(1) will also be in effect for the June 30, 2013 actuarial valuation for the State & Schools plans.

(2) Commencing with the June 30, 2013 valuation, the annual contribution amount with regard to gains and losses recognized in that valuation shall be the dollar amount determined in accordance with the following schedule:

- Year 1: 20% of base payment
- Year 2: 40% of base payment
- Year 3: 60% of base payment
- Year 4: 80% of base payment
- Years 5 through 26: base payment
- Year 27: 80% of base payment
- Year 28: 60% of base payment
- Year 29: 40% of base payment
- Year 30: 20% of base payment

The base payment, for this paragraph (B)(2), shall be the annual amount (increasing each year by the overall payroll increase assumption adopted by the Board) necessary for the gains and losses to be fully amortized over a fixed 30 year period using the above schedule.

Notwithstanding the above, the provisions of this paragraph (B)(2) will commence with the June 30, 2014 actuarial valuation for the State & Schools plans.

(3) For the June 30, 2012 valuation, the annual contribution with regard to a change in unfunded liability due to a change in plan provisions,

or a change in actuarial assumptions, or a change in actuarial methods, shall be the dollar amount (increasing each year by the overall payroll increase assumption adopted by the Board) required to amortize that change in unfunded liability over a period of twenty years from the date of the actuarial valuation which first recognizes that change in unfunded liability.

The provisions of this paragraph (B)(3) will also be in effect for the June 30, 2013 actuarial valuation for the State & Schools plans.

(4) Commencing with the June 30, 2013 actuarial valuation, the annual contribution amount with regard to a change in unfunded liability due to a change in plan provisions (other than a Golden Handshake) shall be the dollar amount (increasing each year by the overall payroll increase assumption adopted by the Board) required to amortize that change in unfunded liability over a period of twenty years from the date of the actuarial valuation which first recognizes that change in unfunded liability

Notwithstanding the above, the provisions of this paragraph (B)(4) will commence with the June 30, 2014 actuarial valuation for the State & Schools plans.

(5) Commencing with the June 30, 2013 actuarial valuation, the annual contribution amount with regard to a change in unfunded liability due to a Golden Handshake shall be the dollar amount (increasing each year by the overall payroll increase assumption adopted by the Board) required to amortize that change in unfunded liability over a period of five years from the date of the actuarial valuation which first recognizes that change in unfunded liability.

Notwithstanding the above, the provisions of this paragraph (B)(5) will commence with the June 30, 2014 actuarial valuation for the State & Schools plans.

(6) Commencing with the June 30, 2013 actuarial valuation, the annual contribution amount with regard to a change in unfunded liability due to a change in actuarial assumptions or actuarial methods shall be the dollar amount required to amortize that change in unfunded liability over a period of twenty years from the date of the actuarial valuation which first recognizes that change in unfunded liability in accordance with the following schedule:

- Year 1: 20% of base payment
- Year 2: 40% of base payment
- Year 3: 60% of base payment
- Year 4: 80% of base payment

- Years 5 through 16: base payment
- Year 17: 80% of base payment
- Year 18: 60% of base payment
- Year 19: 40% of base payment
- Year 20: 20% of base payment

The base payment, for this paragraph (B)(6), shall be the annual amount (increasing each year by the overall payroll increase assumption adopted by the Board) necessary for the change in unfunded liability to be fully amortized over a fixed 20 year period using the above schedule

Notwithstanding the above, the provisions of this paragraph (B)(6) will commence with the June 30, 2014 actuarial valuation for the State & Schools plans.

(7) Any agency contracting with CalPERS for the first time shall have the initial unfunded liability amortized over a period equal to the smaller of twenty years or the average future working lifetime of that agency's active members with the annual contribution amount increasing each year by the overall payroll increase assumption adopted by the Board.

(8) Commencing with the June 30, 2012 actuarial valuation, notwithstanding the foregoing (1) through (7) and except as provided in (10) below, the annual contribution (increasing each year by the overall payroll increase assumption adopted by the Board) with regard to the total unfunded liability as of any valuation date shall not be less than the amount necessary to amortize the total unfunded liability over a period of thirty years from the date of that actuarial valuation.

(9) In certain cases, provide for a Fresh Start of the amortization bases. Under this policy, Fresh Start means combining multiple amortization bases into a single base.

(a) A Fresh Start may be used whenever application of policies as set forth in paragraphs (B)(1) through (B)(8) results in mathematical inconsistencies or a violation of the goals as stated in paragraph (A), including, without limitation, the following circumstances:

(1) a negative employer contribution rate; or
(2) a negative employer amortization payment on a positive unfunded liability; or
(3) a positive employer amortization payment on a negative

unfunded liability (i.e. an actuarial surplus); or

(4) the effect of adding multiple amortization base payments results in a net amortization payment that completely amortizes the total unfunded liability/surplus in a very short time period, which results in a large change in the employer contribution rate; or

(5) whenever application of the methods set forth in paragraph (B), in the professional judgment of the Chief Actuary, does not accomplish the goals as stated in paragraph (A).

(b) The amortization period of the Fresh Start base shall be determined by policies established by the Chief Actuary in a manner which best meets the goals stated in paragraph (A). The Chief Actuary will inform the Board of the policies so established, and the Board shall retain its right to instruct the Chief Actuary to change those policies.

(10) Commencing with the June 30, 2012 actuarial valuation, the annual contribution with regard to the side fund for agencies joining a risk pool for the first time shall be the dollar amount (increasing each year by the overall payroll increase assumption adopted by the Board) required to amortize the side fund using a Fresh Start. The Fresh Start shall be done over a period that would produce an amortization payment that would be as close as possible to the payment that all existing separate amortization bases would have generated had the plan not participated in a risk pool.

(11) Commencing with the June 30, 2012 actuarial valuation, the annual contribution with regard to a change in side fund due to a change in plan provisions for employers participating in a risk pool shall be determined by doing a Fresh Start of the adjusted side fund. The Fresh Start shall be the dollar amount (increasing each year by the overall payroll increase assumption adopted by the Board) payable over the period that would produce a required contribution as close as possible to amortizing the change in side fund in accordance with paragraphs (B)(3) and B(10).

(C) (1) In situations where the Chief Actuary expects a plan to have a decrease in payroll over time or to increase at a slower rate than the overall payroll increase assumption, the methods described in paragraph (B) can be changed to better accomplish the goals stated in paragraph (A) by calculating the dollar amount needed assuming the amount (or base payment) will remain the same each year instead of increasing each year by the overall payroll increase assumption adopted by the Board.

(2) In the case of the inactive agency risk pool, the methods described in paragraph (B) will be applied except that annual contribution amounts will not increase each year by the overall payroll increase assumption adopted by the Board.

(3) When an active plan changes status to an inactive plan, the annual contribution with regard to the side fund shall be the dollar amount required to amortize the side fund calculated at the date of change in status. The amortization period shall be the greater of (i) ten years or (ii) the outstanding amortization period at the date of the change in status.

(D) Public agency employers for whom the policies provided in this Resolution produce severe financial hardship may petition the Chief Actuary, for an extension of the amortization period to no more than thirty years. Other employers for whom the policies provided in this Resolution produce severe financial hardship may petition the Board for an extension of the amortization period to no more than thirty years.

(E) This Resolution shall be effective immediately upon adoption.

* * * * * * * * * * *

I hereby certify that on the 20th day of October, 1999 the Board of Administration of the California Public Employees' Retirement System, made and adopted the foregoing Resolution; and that this Resolution was amended on the 20th day of April, 2005 ; and that this Resolution was again amended on the 17th day of April 2013.

ROB FECKNER, PRESIDENT
BOARD OF ADMINISTRATION,
CALIFORNIA PUBLIC EMPLOYEES'
RETIREMENT SYSTEM

EXHIBIT 6

CalPERS

California Public Employees' Retirement System
Actuarial Office
P.O. Box 942701
Sacramento, CA 94229-2701
TTY: (916) 795-3240
(888) 225-7377 phone · (916) 795-2744 fax
www.calpers.ca.gov

October 2013

SAFETY PLAN OF THE CITY OF STOCKTON (CalPERS ID: 6373973665)
Annual Valuation Report as of June 30, 2012

Dear Employer,

As an attachment to this letter, you will find a copy of the June 30, 2012 actuarial valuation report of your pension plan. Your 2012 actuarial valuation report contains important actuarial information about your pension plan at CalPERS. Your CalPERS staff actuary, whose signature appears in the Actuarial Certification Section on page 1, is available to discuss the report with you after October 31, 2013.

Future Contribution Rates

The exhibit below displays the Minimum Employer Contribution Rate for fiscal year 2014-15 and a projected contribution rate for 2015-16, before any cost sharing. The projected rate for 2015-16 is based on the most recent information available, including an estimate of the investment return for fiscal year 2012-13, namely 12 percent, and the impact of the new smoothing methods adopted by the CalPERS Board in April 2013 that will impact employer rates for the first time in fiscal year 2015-16. For a projection of employer rates beyond 2015-16, please refer to the "Analysis of Future Investment Return Scenarios" in the "Risk Analysis" section, which includes rate projections through 2019-20 under a variety of investment return scenarios. Please disregard any projections that we may have provided you in the past.

Fiscal Year	Employer Contribution Rate
2014-15	41.385%
2015-16	44.5% (projected)

Member contributions other than cost sharing, (whether paid by the employer or the employee) are in addition to the above rates. **The employer contribution rates in this report do not reflect any cost sharing arrangement you may have with your employees.**

The estimate for 2015-16 also assumes that there are no future contract amendments and no liability gains or losses (such as larger than expected pay increases, more retirements than expected, etc.). This is a very important assumption because these gains and losses do occur and can have a significant impact on your contribution rate. Even for the largest plans, such gains and losses often cause a change in the employer's contribution rate of one or two percent of payroll and may be even larger in some less common instances. These gains and losses cannot be predicted in advance so the projected employer contribution rates are just estimates. Your actual rate for 2015-16 will be provided in next year's report.

Changes since the Prior Year's Valuation

On January 1, 2013, the Public Employees' Pension Reform Act of 2013 (PEPRA) took effect. The impact of most of the PEPRA changes will first show up in the rates and the benefit provision listings of the June 30, 2013 valuation for the 2015-16 rates. For more information on PEPRA, please refer to the CalPERS website.

On April 17, 2013, the CalPERS Board of Administration approved a recommendation to change the CalPERS amortization and rate smoothing policies. Beginning with the June 30, 2013 valuations that set the 2015-16 rates, CalPERS will no longer use an actuarial value of assets and will employ an amortization and smoothing policy that will pay for all gains and losses over a fixed 30-year period with the increases or decreases in the rate spread directly over a 5-year period. The impact of this new actuarial methodology is reflected in the "Analysis of Future Investment Return Scenarios" subsection of the "Risk Analysis" section of your report.

A review of the preferred asset allocation mix for CalPERS investment portfolio will be performed in late 2013, which could influence future discount rates. In addition, CalPERS will review economic and demographic assumptions, including mortality rate improvements that are likely to increase employer contribution rates in future years. The "Analysis of Future Investment Return Scenarios" subsection does **not** reflect the impact of assumption changes that we expect will also impact future rates.

Besides the above noted changes, there may also be changes specific to your plan such as contract amendments and funding changes.

Further descriptions of general changes are included in the "Highlights and Executive Summary" section and in Appendix A, "Actuarial Methods and Assumptions." The effect of the changes on your rate is included in the "Reconciliation of Required Employer Contributions."

We understand that you might have a number of questions about these results. While we are very interested in discussing these results with your agency, in the interest of allowing us to give every public agency their results, we ask that you wait until after October 31 to contact us with actuarial questions. If you have other questions, you may call the Customer Contact Center at (888)-CalPERS or (**888-225-7377**).

Sincerely,

ALAN MILLIGAN
Chief Actuary

CalPERS

ACTUARIAL VALUATION

as of June 30, 2012

for the
SAFETY PLAN
of the
CITY OF STOCKTON

(CalPERS ID: 6373973665)

REQUIRED CONTRIBUTIONS FOR FISCAL YEAR July 1, 2014 – June 30, 2015

TABLE OF CONTENTS

ACTUARIAL CERTIFICATION

To the best of our knowledge, this report is complete and accurate and contains sufficient information to disclose, fully and fairly, the funded condition of the SAFETY PLAN OF THE CITY OF STOCKTON. This valuation is based on the member and financial data as of June 30, 2012 provided by the various CalPERS databases and the benefits under this plan with CalPERS as of the date this report was produced. It is our opinion that the valuation has been performed in accordance with generally accepted actuarial principles, in accordance with standards of practice prescribed by the Actuarial Standards Board, and that the assumptions and methods are internally consistent and reasonable for this plan, as prescribed by the CalPERS Board of Administration according to provisions set forth in the California Public Employees' Retirement Law.

The undersigned is an actuary for CalPERS, who is a member of the American Academy of Actuaries and the Society of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

KELLY STURM, ASA, MAAA
Senior Pension Actuary, CalPERS

HIGHLIGHTS AND EXECUTIVE SUMMARY

- INTRODUCTION
- PURPOSE OF THE REPORT
- REQUIRED EMPLOYER CONTRIBUTION
- PLAN'S FUNDED STATUS
- COST
- CHANGES SINCE THE PRIOR YEAR'S VALUATION
- SUBSEQUENT EVENTS

Introduction

This report presents the results of the June 30, 2012 actuarial valuation of the SAFETY PLAN OF THE CITY OF STOCKTON of the California Public Employees' Retirement System (CalPERS). This actuarial valuation sets the fiscal year 2014-15 required employer contribution rates.

On January 1, 2013, the Public Employees' Pension Reform Act of 2013 (PEPRA) took effect. The impact of most of the PEPRA changes will first show up in the rates and the benefit provision listings of the June 30, 2013 valuation, which sets the 2015-16 contribution rates. For more information on PEPRA, please refer to the CalPERS website.

On April 17, 2013, the CalPERS Board of Administration approved a recommendation to change the CalPERS amortization and smoothing policies. Prior to this change, CalPERS employed an amortization and smoothing policy, which spread investment returns over a 15-year period while experience gains and losses were amortized over a rolling 30-year period. Effective with the June 30, 2013 valuations, CalPERS will no longer use an actuarial value of assets and will employ an amortization and smoothing policy that will spread rate increases or decreases over a 5-year period, and will amortize all experience gains and losses over a fixed 30-year period.

The new amortization and smoothing policy will be used for the first time in the June 30, 2013 actuarial valuations. These valuations will be performed in the fall of 2014 and will set employer contribution rates for the fiscal year 2015-16.

As stewards of the System, CalPERS must ensure that the pension fund is sustainable over multiple generations. Our strategic plan calls for us to take an integrated view of our assets and liabilities and to take steps designed to achieve a fully funded plan. A review of the preferred asset allocation mix for CalPERS investment portfolio will be performed in late 2013, which could influence future discount rates. In addition, CalPERS will review economic and demographic assumptions, including mortality rate improvements that are likely to increase employer contribution rates in future years.

Purpose of the Report

The actuarial valuation was prepared by the CalPERS Actuarial Office using data as of June 30, 2012. The purpose of the report is to:

- Set forth the actuarial assets and accrued liabilities of this plan as of June 30, 2012;
- Determine the required employer contribution rate for the fiscal year July 1, 2014 through June 30, 2015;
- Provide actuarial information as of June 30, 2012 to the CalPERS Board of Administration and other interested parties, and to;
- Provide pension information as of June 30, 2012 to be used in financial reports subject to Governmental Accounting Standards Board (GASB) Statement Number 27 for a Single Employer Defined Benefit Pension Plan.

California Actuarial Advisory Panel Recommendations

This report includes all the basic disclosure elements as described in the *Model Disclosure Elements for Actuarial Valuation Reports* recommended in 2011 by the California Actuarial Advisory Panel (CAAP), with the exception of including the original base amounts of the various components of the unfunded liability in the Schedule of Amortization Bases shown on page 19.

Additionally, this report includes the following "Enhanced Risk Disclosures" also recommended by the CAAP in the Model Disclosure Elements document:

- A "Deterministic Stress Test," projecting future results under different investment income scenarios
- A "Sensitivity Analysis," showing the impact on current valuation results using a 1% plus or minus change in the discount rate.

The use of this report for any other purposes may be inappropriate. In particular, this report does not contain information applicable to alternative benefit costs. The employer should contact their actuary before disseminating any portion of this report for any reason that is not explicitly described above.

Required Employer Contribution

		Fiscal Year 2013-14		Fiscal Year 2014-15
Actuarially Determined Employer Contributions				
1. Contribution in Projected Dollars				
a) Total Normal Cost	$	16,760,403	$	14,336,846
b) Employee Contribution[1]		5,011,749		4,401,856
c) Employer Normal Cost [(1a) – (1b)]		11,748,654		9,934,990
d) Unfunded Contribution		7,521,294		10,306,453
e) Required Employer Contribution [(1c) + (1d)]	$	19,269,948	$	20,241,443
Projected Annual Payroll for Contribution Year	$	55,686,101	$	48,909,515
2. Contribution as a Percentage of Payroll				
a) Total Normal Cost		30.098%		29.313%
b) Employee Contribution[1]		9.000%		9.000%
c) Employer Normal Cost [(2a) – (2b)]		21.098%		20.313%
d) Unfunded Rate		13.507%		21.072%
e) Required Employer Rate [(2c) + (2d)]		34.605%		41.385%
Minimum Employer Contribution Rate[2]		**34.605%**		**41.385%**
Annual Lump Sum Prepayment Option[3]	$	18,585,588	$	19,522,581

[1]This is the percentage specified in the Public Employees Retirement Law, net of any reduction from the use of a modified formula or other factors. Employee cost sharing is not shown in this report.

[2]The Minimum Employer Contribution Rate under PEPRA is the greater of the required employer rate or the employer normal cost.

[3]Payment must be received by CalPERS before the first payroll reported to CalPERS of the new fiscal year and after June 30. If there is contractual cost sharing or other change, this amount will change.

Plan's Funded Status

		June 30, 2011		June 30, 2012
1. Present Value of Projected Benefits	$	946,603,971	$	950,265,629
2. Entry Age Normal Accrued Liability		802,778,310		830,040,184
3. Actuarial Value of Assets (AVA)		685,732,778		685,764,728
4. Unfunded Liability (AVA Basis) [(2) – (3)]	$	117,045,532	$	144,275,456
5. Funded Ratio (AVA Basis) [(3) / (2)]		85.4%		82.6%
6. Market Value of Assets (MVA)	$	598,289,135	$	571,679,198
7. Unfunded Liability (MVA Basis) [(2) – (6)]	$	204,489,175	$	258,360,986
8. Funded Ratio (MVA Basis) [(6) / (2)]		74.5%		68.9%
Superfunded Status		No		No

Cost

Actuarial Cost Estimates in General

What will this pension plan cost? Unfortunately, there is no simple answer. There are two major reasons for the complexity of the answer. First, actuarial calculations, including the ones in this report, are based on a number of assumptions about the future. These assumptions can be divided into two categories.

- Demographic assumptions include the percentage of employees that will terminate, die, become disabled, and retire in each future year.
- Economic assumptions include future salary increases for each active employee, and the assumption with the greatest impact, future asset returns at CalPERS for each year into the future until the last dollar is paid to current members of your plan.

While CalPERS has set these assumptions to reflect our best estimate of the real future of your plan, it must be understood that these assumptions are very long-term predictors and will surely not be realized in any one year. For example, while the asset earnings at CalPERS have averaged more than the assumed return of 7.5 percent for the past twenty year period ending June 30, 2013, returns for each fiscal year ranged from negative -24 percent to +21.7 percent.

Second, the very nature of actuarial funding produces the answer to the question of plan cost as the sum of two separate pieces.

- The Normal Cost (i.e., the future annual premiums in the absence of surplus or unfunded liability) expressed as a percentage of total active payroll.
- The Past Service Cost or Accrued Liability (i.e., the current value of the benefit for all credited past service of current members) which is expressed as a lump sum dollar amount.

The cost is the sum of a percent of future pay and a lump sum dollar amount (the sum of an apple and an orange if you will). To communicate the total cost, either the Normal Cost (i.e., future percent of payroll) must be converted to a lump sum dollar amount (in which case the total cost is the present value of benefits), or the Past Service Cost (i.e., the lump sum) must be converted to a percent of payroll (in which case the total cost is expressed as the employer's rate, part of which is permanent and part temporary). Converting the Past Service Cost lump sum to a percent of payroll requires a specific amortization period, and the employer rate will vary depending on the amortization period chosen.

Changes since the Prior Year's Valuation

Benefits

The standard actuarial practice at CalPERS is to recognize mandated legislative benefit changes in the first annual valuation following the effective date of the legislation. Voluntary benefit changes by plan amendment are generally included in the first valuation that is prepared after the amendment becomes effective even if the valuation date is prior to the effective date of the amendment.

This valuation generally reflects plan changes by amendments effective before the date of the report. Please refer to Appendix B for a summary of the plan provisions used in this valuation. The effect of any mandated benefit changes or plan amendments on the unfunded liability is shown in the "(Gain)/Loss Analysis" and the effect on your employer contribution rate is shown in the "Reconciliation of Required Employer Contributions." It should be noted that no change in liability or rate is shown for any plan changes, which were already included in the prior year's valuation.

Public Employees' Pension Reform Act of 2013 (PEPRA)

On January 1, 2013, the Public Employees' Pension Reform Act of 2013 (PEPRA) took effect, requiring that a public employer's contribution to a defined benefit plan, in combination with employee contributions to that defined benefit plan, shall not be less than the normal cost rate. Beginning July 1, 2013, this means that some plans with surplus will be paying more than they otherwise would. For more information on PEPRA, please refer to the CalPERS website.

Subsequent Events

Actuarial Methods and Assumptions

On April 17, 2013, the CalPERS Board of Administration approved a recommendation to change the CalPERS amortization and smoothing policies. Beginning with the June 30, 2013 valuations that set the 2015-16 rates, CalPERS will no longer use an actuarial value of assets and will employ an amortization and rate smoothing policy that will pay for all gains and losses over a fixed 30-year period with the increases or decreases in the rate spread directly over a 5-year period. The impact of this new actuarial methodology is reflected in the "Expected Rate Increases" subsection of the "Risk analysis" section of your report.

Not reflected in the "Expected Rate Increases" subsection of the "Risk analysis" section is the impact of assumption changes that we expect will also, impact future rates. A review of the preferred asset allocation mix for CalPERS investment portfolio will be performed in late 2013, which could influence future discount rates. In addition, CalPERS will review economic and demographic assumptions, including mortality rate improvements that are likely to increase employer contribution rates in future years.

Bankruptcy

On June 28, 2012, the City of Stockton filed a petition for Chapter 9 bankruptcy protection with the United States Bankruptcy Court. That petition was approved by the Judge on April 1, 2013. The bankruptcy did not have an impact on the valuation or the determination of the required contributions for the 2014-15 fiscal year.

ASSETS

- RECONCILIATION OF THE MARKET VALUE OF ASSETS
- DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS
- ASSET ALLOCATION
- CALPERS HISTORY OF INVESTMENT RETURNS

Reconciliation of the Market Value of Assets

1.	Market Value of Assets as of 6/30/11 Including Receivables	$	598,289,135
2.	Receivables for Service Buybacks as of 6/30/11		598,451
3.	Market Value of Assets as of 6/30/11		597,690,684
4.	Employer Contributions		13,384,977
5.	Employee Contributions		4,392,327
6.	Benefit Payments to Retirees and Beneficiaries		(42,339,890)
7.	Refunds		(69,339)
8.	Lump Sum Payments		0
9.	Transfers and Miscellaneous Adjustments		(1,283,259)
10.	Investment Return		(1,347,850)
11.	Market Value of Assets as of 6/30/12	$	570,427,650
12.	Receivables for Service Buybacks as of 6/30/12		1,251,548
13.	Market Value of Assets as of 6/30/12 Including Receivables	$	571,679,198

Development of the Actuarial Value of Assets

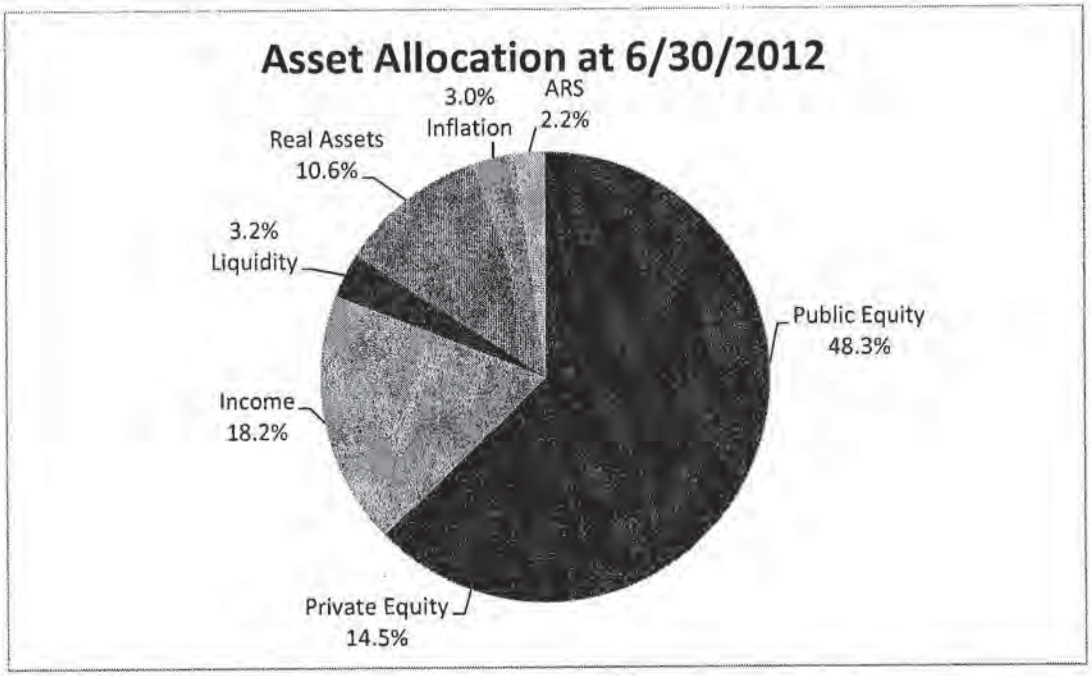
1.	Actuarial Value of Assets as of 6/30/11 Used For Rate Setting Purposes	$	685,732,778
2.	Receivables for Service Buybacks as of 6/30/11		598,451
3.	Actuarial Value of Assets as of 6/30/11		685,134,327
4.	Employer Contributions		13,384,977
5.	Employee Contributions		4,392,327
6.	Benefit Payments to Retirees and Beneficiaries		(42,339,890)
7.	Refunds		(69,339)
8.	Lump Sum Payments		0
9.	Transfers and Miscellaneous Adjustments		(1,283,259)
10.	Expected Investment Income at 7.5%		50,430,824
11.	Expected Actuarial Value of Assets	$	709,649,967
12.	Market Value of Assets as of 6/30/12	$	570,427,650
13.	Preliminary Actuarial Value of Assets [(11) + ((12) – (11)) / 15]		700,368,479
14.	Maximum Actuarial Value of Assets (120% of (12))		684,513,180
15.	Minimum Actuarial Value of Assets (80% of (12))		456,342,120
16.	Actuarial Value of Assets {Lesser of [(14), Greater of ((13), (15))]}		684,513,180
17.	Actuarial Value to Market Value Ratio		120.0%
18.	Receivables for Service Buybacks as of 6/30/12		1,251,548
19.	Actuarial Value of Assets as of 6/30/12 Used for Rate Setting Purposes	$	685,764,728

Asset Allocation

CalPERS adheres to an Asset Allocation Strategy which establishes asset class allocation policy targets and ranges, and manages those asset class allocations within their policy ranges. CalPERS recognizes that over 90 percent of the variation in investment returns of a well-diversified pool of assets can typically be attributed to asset allocation decisions. In December 2010 the Board approved the policy asset class targets and ranges listed below. These policy asset allocation targets and ranges are expressed as a percentage of total assets and were expected to be implemented over a period of one to two years beginning July 1, 2011 and reviewed again in December 2013.

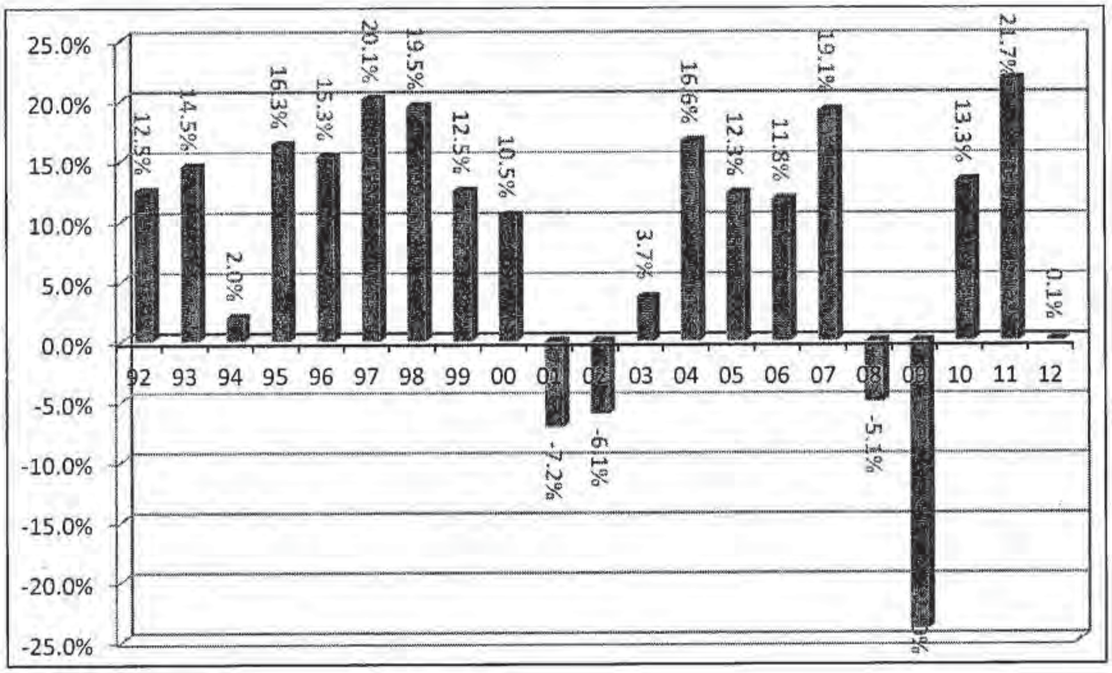
The asset allocation and market value of assets shown below reflect the values of the Public Employees Retirement Fund (PERF) in its entirety as of June 30, 2012. The assets for CITY OF STOCKTON SAFETY PLAN are part of the Public Employees Retirement Fund (PERF) and are invested accordingly.

(A) Asset Class	(B) Market Value ($ Billion)	(C) Policy Target Allocation	(D) Policy Target Range
1) Public Equity	113.0	50.0%	+/- 7%
2) Private Equity	33.9	14.0%	+/- 4%
3) Fixed Income	42.6	17.0%	+/- 5%
4) Cash Equivalents	7.5	4.0%	+/- 5%
5) Real Assets	24.8	11.0%	+/- 3%
6) Inflation Assets	7.0	4.0%	+/- 3%
7) Absolute Return Strategy (ARS)	5.1	0.0%	N/A
Total Fund	**$233.9**	**100.0%**	**N/A**



CalPERS History of Investment Returns

The following is a chart with historical annual returns of the Public Employees Retirement Fund for each fiscal year ending on June 30. Beginning in 2002, the figures are reported as gross of fees.



LIABILITIES AND RATES

- DEVELOPMENT OF ACCRUED AND UNFUNDED LIABILITIES
- (GAIN) / LOSS ANALYSIS 06/30/11 - 06/30/12
- SCHEDULE OF AMORTIZATION BASES
- RECONCILIATION OF REQUIRED EMPLOYER CONTRIBUTIONS
- EMPLOYER CONTRIBUTION RATE HISTORY
- FUNDING HISTORY

Development of Accrued and Unfunded Liabilities

1.	Present Value of Projected Benefits		
	a) Active Members	$	334,080,503
	b) Transferred Members		17,477,674
	c) Terminated Members		6,534,659
	d) Members and Beneficiaries Receiving Payments		592,172,793
	e) Total	$	950,265,629
2.	Present Value of Future Employer Normal Costs	$	82,997,783
3.	Present Value of Future Employee Contributions	$	37,227,662
4.	Entry Age Normal Accrued Liability		
	a) Active Members [(1a) - (2) - (3)]	$	213,855,058
	b) Transferred Members (1b)		17,477,674
	c) Terminated Members (1c)		6,534,659
	d) Members and Beneficiaries Receiving Payments (1d)		592,172,793
	e) Total	$	830,040,184
5.	Actuarial Value of Assets (AVA)	$	685,764,728
6.	Unfunded Accrued Liability (AVA Basis) [(4e) – (5)]	$	144,275,456
7.	Funded Ratio (AVA Basis) [(5) / (4e)]		82.6%
8.	Market Value of Assets (MVA)	$	571,679,198
9.	Unfunded Liability (MVA Basis) [(4e) - (8)]	$	258,360,986
10.	Funded Ratio (MVA Basis) [(8) / (4e)]		68.9%

(Gain) /Loss Analysis 6/30/11 – 6/30/12

To calculate the cost requirements of the plan, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is compared to the expected experience based on the actuarial assumptions. This results in actuarial gains or losses, as shown below.

A	**Total (Gain)/Loss for the Year**			
	1.	Unfunded Accrued Liability (UAL) as of 6/30/11	$	117,045,532
	2.	Expected Payment on the UAL during 2011/2012		4,199,684
	3.	Interest through 6/30/12 [.075 x (A1) - ((1.075)^{½} - 1) x (A2)]		8,623,774
	4.	Expected UAL before all other changes [(A1) - (A2) + (A3)]		121,469,622
	5.	Change due to plan changes		0
	6.	Change due to assumption change		0
	7.	Expected UAL after all other changes [(A4) + (A5) + (A6)]		121,469,622
	8.	Actual UAL as of 6/30/12		144,275,456
	9.	Total (Gain)/Loss for 2011/2012 [(A8) - (A7)]	$	22,805,834
B	**Contribution (Gain)/Loss for the Year**			
	1.	Expected Contribution (Employer and Employee)	$	19,997,971
	2.	Interest on Expected Contributions		736,367
	3.	Actual Contributions		17,777,304
	4.	Interest on Actual Contributions		654,597
	5.	Expected Contributions with Interest [(B1) + (B2)]		20,734,338
	6.	Actual Contributions with Interest [(B3) + (B4)]		18,431,901
	7.	Contribution (Gain)/Loss [(B5) - (B6)]	$	2,302,437
C	**Asset (Gain)/Loss for the Year**			
	1.	Actuarial Value of Assets as of 6/30/11 Including Receivables	$	685,732,778
	2.	Receivables as of 6/30/11		598,451
	3.	Actuarial Value of Assets as of 6/30/11		685,134,327
	4.	Contributions Received		17,777,304
	5.	Benefits and Refunds Paid		(42,409,229)
	6.	Transfers and miscellaneous adjustments		(1,283,259)
	7.	Expected Int. [.075 x (C3) + ((1.075)^{½} - 1) x ((C4) + (C5) + (C6))]		50,430,824
	8.	Expected Assets as of 6/30/12 [(C3) + (C4) + (C5) + (C6) + (C7)]		709,649,967
	9.	Receivables as of 6/30/12		1,251,548
	10.	Expected Assets Including Receivables		710,901,515
	11.	Actual Actuarial Value of Assets as of 6/30/12		685,764,728
	12.	Asset (Gain)/Loss [(C10) - (C11)]	$	25,136,787
D	**Liability (Gain)/Loss for the Year**			
	1.	Total (Gain)/Loss (A9)	$	22,805,834
	2.	Contribution (Gain)/Loss (B7)		2,302,437
	3.	Asset (Gain)/Loss (C12)		25,136,787
	4.	Liability (Gain)/Loss [(D1) - (D2) - (D3)]	$	(4,633,390)

Development of the (Gain)/Loss Balance as of 6/30/12

1.	(Gain)/Loss Balance as of 6/30/11	$	20,156,066
2.	Payment Made on the Balance during 2011/2012		1,210,391
3.	Interest through 6/30/12 [.075 x (1) - ((1.075)$^{1/2}$ - 1) x (2)]		1,467,136
4.	Scheduled (Gain)/Loss Balance as of 6/30/12 [(1) - (2) + (3)]	$	20,412,811
5.	(Gain)/Loss for Fiscal Year ending 6/30/12 [(A9) above]		22,805,834
6.	Final (Gain)/Loss Balance as of 6/30/12 [(4) + (5)]	$	43,218,645

Schedule of Amortization Bases

There is a two-year lag between the Valuation Date and the Contribution Fiscal Year.

- The assets, liabilities and funded status of the plan are measured as of the valuation date; June 30, 2012.
- The employer contribution rate determined by the valuation is for the fiscal year beginning two years after the valuation date; fiscal year 2014-15.

This two-year lag is necessary due to the amount of time needed to extract and test the membership and financial data, and due to the need to provide public agencies with their employer contribution rates well in advance of the start of the fiscal year.

The Unfunded Liability is used to determine the employer contribution and therefore must be rolled forward two years from the valuation date to the first day of the fiscal year for which the contribution is being determined. The Unfunded Liability is rolled forward each year by subtracting the expected Payment on the Unfunded Liability for the fiscal year and adjusting for interest. The Expected Payment on the Unfunded Liability for a fiscal year is equal to the Expected Employer Contribution for the fiscal year minus the Expected Normal Cost for the year. The Employer Contribution Rate for the first fiscal year is determined by the actuarial valuation two years ago and the rate for the second year is from the actuarial valuation one year ago. The Normal Cost Rate for each of the two fiscal years is assumed to be the same as the rate determined by the current valuation. All expected dollar amounts are determined by multiplying the rate by the expected payroll for the applicable fiscal year, based on payroll as of the valuation date.

							Amounts for Fiscal 2014-15		
Reason for Base	Date Established	Amorti-zation Period	Balance 6/30/12	Expected Payment 2012-13	Balance 6/30/13	Expected Payment 2013-14	Balance 6/30/14	Scheduled Payment for 2014-15	Payment as Percent-age of Payroll
FRESH START	06/30/06	24	$22,511,026	$1,459,677	$22,685,928	$1,499,414	$22,832,747	$1,544,396	3.158%
ASSUMPTION CHANGE	06/30/09	17	$16,572,337	$1,296,704	$16,470,811	$1,331,579	$16,325,511	$1,371,526	2.804%
SPECIAL (GAIN)/LOSS	06/30/09	27	$31,184,119	$1,909,179	$31,543,449	$1,961,378	$31,875,608	$2,020,219	4.131%
SPECIAL (GAIN)/LOSS	06/30/10	28	$12,604,205	$758,655	$12,762,930	$779,484	$12,911,964	$802,869	1.642%
GOLDEN HANDSHAKE	06/30/11	19	$3,310,801	$0	$3,559,111	$268,732	$3,547,417	$276,794	0.566%
ASSUMPTION CHANGE	06/30/11	19	$15,035,938	$(310,328)	$16,485,388	$414,912	$17,291,602	$1,349,211	2.759%
SPECIAL (GAIN)/LOSS	06/30/11	29	$(1,449,577)	$0	$(1,558,296)	$(93,576)	$(1,578,147)	$(96,384)	(0.197%)
PAYMENT (GAIN)/LOSS	06/30/12	30	$1,287,962	$(1,051,519)	$2,474,798	$(616,603)	$3,299,715	$198,149	0.405%
(GAIN)/LOSS	06/30/12	30	$43,218,645	$1,228,748	$45,186,051	$1,241,231	$47,288,069	$2,839,673	5.806%
TOTAL			**$144,275,456**	**$5,291,116**	**$149,610,170**	**$6,786,551**	**$153,794,486**	**$10,306,453**	**21.072%**

The special (gain)/loss bases were established using the temporary modification recognized in the 2009, 2010 and 2011 annual valuations. Unlike the gain/loss occurring in previous and subsequent years, the gain/loss recognized in the 2009, 2010, and 2011 annual valuations will be amortized over fixed and declining 30-year periods so that these annual gain/losses will be fully paid off in 30 years. The gain/loss recognized in 2012 and later valuations will be combined with the gain/loss from 2008 and earlier valuations.

Reconciliation of Required Employer Contributions

	Percentage of Projected Payroll	Estimated $ Based on Projected Payroll
1. Contribution for 7/1/13 – 6/30/14	34.605%	$ 19,269,948
2. Effect of changes since the prior year annual valuation		
a) Effect of unexpected changes in demographics and financial results	6.780%	3,316,533
b) Effect of plan changes	0.000%	0
c) Effect of changes in Assumptions	0.000%	0
d) Effect of change in payroll	-	(2,345,038)
e) Effect of elimination of amortization base	0.000%	0
f) Effect of changes due to Fresh Start	0.000%	0
g) Net effect of the changes above [Sum of (a) through (f)]	6.780%	971,495
3. Contribution for 7/1/14 – 6/30/15 [(1)+(2g)]	41.385%	20,241,443

The contribution actually paid (item 1) may be different if a prepayment of unfunded actuarial liability is made or a plan change became effective after the prior year's actuarial valuation was performed.

Employer Contribution Rate History

The table below provides a recent history of the employer contribution rates for your plan, as determined by the annual actuarial valuation. It does not account for prepayments or benefit changes made in the middle of the year.

Required By Valuation

Fiscal Year	Employer Normal Cost	Unfunded Rate	Total Employer Contribution Rate
2010 - 2011	19.193%	4.078%	23.271%
2011 - 2012	20.255%	8.844%	29.099%
2012 - 2013	20.675%	11.115%	31.790%
2013 - 2014	21.098%	13.507%	34.605%
2014 - 2015	20.313%	21.072%	41.385%

Funding History

The Funding History below shows the recent history of the actuarial accrued liability, the market value of assets, the actuarial value of assets, funded ratios and the annual covered payroll. The Actuarial Value of Assets is used to establish funding requirements and the funded ratio on this basis represents the progress toward fully funding future benefits for current plan participants. The funded ratio based on the Market Value of Assets is an indicator of the short-term solvency of the plan.

Valuation Date	Accrued Liability	Actuarial Value of Assets (AVA)	Market Value of Assets (MVA)	Funded Ratio AVA	Funded Ratio MVA	Annual Covered Payroll
06/30/08	$ 664,028,434	$ 625,633,414	$ 630,768,567	94.2%	95.0%	$ 56,811,031
06/30/09	724,324,197	644,939,577	461,800,556	89.0%	63.8%	58,595,623
06/30/10	758,325,561	662,601,684	509,873,530	87.4%	67.2%	54,798,082
06/30/11	802,778,310	685,732,778	598,289,135	85.4%	74.5%	50,960,671
06/30/12	830,040,184	685,764,728	571,679,198	82.6%	68.9%	44,759,135

RISK ANALYSIS

- VOLATILITY RATIOS
- PROJECTED RATES
- ANALYSIS OF FUTURE INVESTMENT RETURN SCENARIOS
- ANALYSIS OF DISCOUNT RATE SENSITIVITY
- HYPOTHETICAL TERMINATION LIABILITY

Volatility Ratios

The actuarial calculations supplied in this communication are based on a number of assumptions about very long-term demographic and economic behavior. Unless these assumptions (terminations, deaths, disabilities, retirements, salary growth, and investment return) are exactly realized each year, there will be differences on a year-to-year basis. The year-to-year differences between actual experience and the assumptions are called actuarial gains and losses and serve to lower or raise the employer's rates from one year to the next. Therefore, the rates will inevitably fluctuate, especially due to the ups and downs of investment returns.

Asset Volatility Ratio (AVR)

Plans that have higher asset to payroll ratios produce more volatile employer rates due to investment return. For example, a plan with an asset to payroll ratio of 8 may experience twice the contribution volatility due to investment return volatility, than a plan with an asset to payroll ratio of 4. Below we have shown your asset volatility ratio, a measure of the plan's current rate volatility. It should be noted that this ratio is a measure of the current situation. It increases over time but generally tends to stabilize as the plan matures.

Liability Volatility Ratio

Plans that have higher liability to payroll ratios produce more volatile employer rates due to investment return and changes in liability. For example, a plan with a liability to payroll ratio of 8 is expected to have twice the contribution volatility of a plan with a liability to payroll ratio of 4. The liability volatility ratio is also included in the table below. It should be noted that this ratio indicates a longer-term potential for contribution volatility and the asset volatility ratio, described above, will tend to move closer to this ratio as the plan matures.

Rate Volatility		As of June 30, 2012
1. Market Value of Assets without Receivables	$	570,427,650
2. Payroll		44,759,135
3. Asset Volatility Ratio (AVR = 1. / 2.)		12.7
4. Accrued Liability	$	830,040,184
5. Liability Volatility Ratio (4. / 2.)		18.5

Projected Rates

On April 17, 2013, the CalPERS Board of Administration approved a recommendation to change the CalPERS amortization and smoothing policies. Beginning with the June 30, 2013 valuations that will set the 2015-16 rates, CalPERS will employ an amortization and rate smoothing policy that will pay for all gains and losses over a fixed 30-year period with the increases or decreases in the rate spread directly over a 5-year period. The table below shows projected employer contribution rates (before cost sharing) for the next five Fiscal Years, ***assuming CalPERS earns 12% for fiscal year 2012-13 and 7.50 percent every fiscal year thereafter***, and assuming that all other actuarial assumptions will be realized and that no further changes to assumptions, contributions, benefits, or funding will occur between now and the beginning of the fiscal year 2015-16. ***Consequently, these projections do not take into account potential rate increases from likely future assumption changes.*** Nor do they take into account the positive impact PEPRA is expected to gradually have on the normal cost.

	New Rate	**Projected Future Employer Contribution Rates**				
	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**2019-20**
Contribution Rates:	41.385%	44.5%	47.7%	50.8%	54.0%	57.1%

Analysis of Future Investment Return Scenarios

In July 2013, the investment return for fiscal year 2012-13 was announced to be 12.5 percent. Note that this return is before administrative expenses and also does not reflect final investment return information for real estate and private equities. The final return information for these two asset classes is expected to be available later in October. For purposes of projecting future employer rates, we are assuming a 12 percent investment return for fiscal year 2012-13.

The investment return realized during a fiscal year first affects the contribution rate for the fiscal year 2 years later. Specifically, the investment return for 2012-13 will first be reflected in the June 30, 2013 actuarial valuation that will be used to set the 2015-16 employer contribution rates, the 2013-14 investment return will first be reflected in the June 30, 2014 actuarial valuation that will be used to set the 2016-17 employer contribution rates and so forth.

Based on a 12 percent investment return for fiscal year 2012-13 **and the April 17, 2013 CalPERS Board-approved amortization and rate smoothing method change,** and assuming that all other actuarial assumptions will be realized, and that no further changes to assumptions, contributions, benefits, or funding will occur between now and the beginning of the fiscal year 2015-16, the effect on the 2015-16 Employer Rate is as follows: (Note that this estimated rate does not reflect additional assumption changes as discussed in the "Subsequent Events" section.)

Estimated 2015-16 Employer Rate	**Estimated Increase in Employer Rate between 2014-15 and 2015-16**
44.5%	3.1%

As part of this report, a sensitivity analysis was performed to determine the effects of various investment returns during fiscal years 2013-14, 2014-15 and 2015-16 on the 2016-17, 2017-18 and 2018-19 employer rates. Once again, the projected rate increases assume that all other actuarial assumptions will be realized and that no further changes to assumptions, contributions, benefits, or funding will occur.

Five different investment return scenarios were selected.

- The first scenario is what one would expect if the markets were to give us a 5th percentile return from July 1, 2013 through June 30, 2016. The 5th percentile return corresponds to a -4.1 percent return for each of the 2013-14, 2014-15 and 2015-16 fiscal years.
- The second scenario is what one would expect if the markets were to give us a 25th percentile return from July 1, 2013 through June 30, 2016. The 25th percentile return corresponds to a 2.6 percent return for each of the 2013-14, 2014-15 and 2015-16 fiscal years.
- The third scenario assumed the return for 2013-14, 2014-15, 2015-16 would be our assumed 7.5 percent investment return which represents about a 49th percentile event.
- The fourth scenario is what one would expect if the markets were to give us a 75th percentile return from July 1, 2013 through June 30, 2016. The 75th percentile return corresponds to a 11.9 percent return for each of the 2013-14, 2014-15 and 2015-16 fiscal years.
- Finally, the last scenario is what one would expect if the markets were to give us a 95th percentile return from July 1, 2013 through June 30, 2016. The 95th percentile return corresponds to a 18.5 percent return for each of the 2013-14, 2014-15 and 2015-16 fiscal years.

The table below shows the estimated projected contribution rates and the estimated increases for your plan under the five different scenarios.

2013-16 Investment Return Scenario	Estimated Employer Rate			Estimated Change in Employer Rate between 2015-16 and 2018-19
	2016-17	2017-18	2018-19	
-4.1% (5th percentile)	49.9%	57.1%	66.2%	21.7%
2.6% (25th percentile)	48.6%	53.6%	59.4%	14.9%
7.5%	47.7%	50.8%	54.0%	9.5%
11.9%(75th percentile)	46.8%	48.3%	48.8%	4.3%
18.5%(95th percentile)	45.6%	44.4%	40.6%	-3.9%

Analysis of Discount Rate Sensitivity

The following analysis looks at the 2014-15 employer contribution rates under two different discount rate scenarios. Shown below are the employer contribution rates assuming discount rates that are 1 percent lower and 1 percent higher than the current valuation discount rate. This analysis gives an indication of the potential required employer contribution rates if the PERF were to realize investment returns of 6.50 percent or 8.50 percent over the long-term.

This type of analysis gives the reader a sense of the long-term risk to the employer contribution rates.

2014-15 Employer Contribution Rate			
As of June 30, 2012	6.50% Discount Rate (-1%)	7.50% Discount Rate (assumed rate)	8.50% Discount Rate (+1%)
Employer Normal Cost	28.173%	20.313%	14.374%
Unfunded Rate Payment	38.059%	21.072%	5.734%
Total	66.232%	41.385%	20.108%

Hypothetical Termination Liability

Below is an estimate of the financial position of your plan if you had terminated your contract with CalPERS as of June 30, 2012 using the discount rates shown below. Your plan liability on a termination basis is calculated differently compared to the plan's ongoing funding liability. In December 2012, the CalPERS Board adopted a more conservative investment policy and asset allocation strategy for the Terminated Agency Pool. Since the Terminated Agency Pool has limited funding sources, expected benefit payments are secured by risk-free assets. With this change, CalPERS increased benefit security for members while limiting its funding risk. This asset allocation has a lower expected rate of return than the PERF. Consequently, the lower discount rate for the Terminated Agency pool results in higher liabilities for terminated plans.

In order to terminate your plan, you must first contact our Retirement Services Contract Unit to initiate a Resolution of Intent to Terminate. The completed Resolution will allow your plan actuary to give you a preliminary termination valuation with a more up-to-date estimate of your plan liabilities. CalPERS advises you to consult with your plan actuary before beginning this process.

Valuation Date	Hypothetical Termination Liability[1]	Market Value of Assets (MVA)	Unfunded Termination Liability	Termination Funded Ratio	Termination Liability Discount Rate[2]
06/30/11	$ 1,186,712,063	$ 598,289,135	$ 588,422,928	50.4%	4.82%
06/30/12	1,614,069,650	571,679,198	1,042,390,452	35.4%	2.98%

[1] The hypothetical liabilities calculated above include a 7 percent mortality contingency load in accordance with Board policy. Other actuarial assumptions, such as wage and inflation assumptions, can be found in appendix A.

[2] The discount rate assumption used for termination valuations is a weighted average of the 10 and 30-year US Treasury yields in effect on the valuation date that equal the duration of the pension liabilities. For purposes of this hypothetical termination liability estimate, the discount rate used, 2.98 percent, is the yield on the 30-year US Treasury Separate Trading of Registered Interest and Principal of Securities (STRIPS) as of June 30, 2012. In last year's report the May 2012 rate of 2.87 percent was inadvertently shown rather than the June rate of 2.98 percent. Please note, as of June 30, 2013 the 30-year STRIPS yield was 3.72 percent.

GASB STATEMENT NO. 27

SAFETY PLAN of the CITY OF STOCKTON

Information for Compliance with GASB Statement No. 27

Disclosure under GASB 27 follows. However, note that effective for financial statements for fiscal years beginning after June 15, 2014, GASB 68 replaces GASB 27. GASB 68 will require additional reporting. CalPERS is planning to provide GASB 68 disclosure information upon request for an additional fee. We urge you to start discussions with your auditors on how to implement GASB 68.

Under GASB 27, an employer reports an annual pension cost (APC) equal to the annual required contribution (ARC) plus an adjustment for the cumulative difference between the APC and the employer's actual plan contributions for the year. The cumulative difference is called the net pension obligation (NPO). The ARC for the period July 1, 2014 to June 30, 2015 has been determined by an actuarial valuation of the plan as of June 30, 2012. The unadjusted GASB compliant contribution rate for the indicated period is 41.385 percent of payroll. In order to calculate the dollar value of the ARC for inclusion in financial statements prepared as of June 30, 2015, this contribution rate, less any employee cost sharing, as modified by any amendments for the year, would be multiplied by the payroll of covered employees that was actually paid during the period July 1, 2014 to June 30, 2015. The employer and the employer's auditor are responsible for determining the NPO and the APC.

A summary of principal assumptions and methods used to determine the ARC is shown below.

	Retirement Program
Valuation Date	June 30, 2012
Actuarial Cost Method	Entry Age Normal Cost Method
Amortization Method	Level Percent of Payroll
Average Remaining Period	26 Years as of the Valuation Date
Asset Valuation Method	15 Year Smoothed Market
Actuarial Assumptions	
Discount Rate	7.50% (net of administrative expenses)
Projected Salary Increases	3.30% to 14.20% depending on Age, Service, and type of employment
Inflation	2.75%
Payroll Growth	3.00%
Individual Salary Growth	A merit scale varying by duration of employment coupled with an assumed annual inflation growth of 2.75% and an annual production growth of 0.25%.

Initial unfunded liabilities are amortized over a closed period that depends on the plan's date of entry into CalPERS. Subsequent plan amendments are amortized as a level percentage of pay over a closed 20-year period. Gains and losses that occur in the operation of the plan are amortized over a 30-year rolling period, which results in an amortization of about 6 percent of unamortized gains and losses each year. If the plan's accrued liability exceeds the actuarial value of plan assets, then the amortization payment on the total unfunded liability may not be lower than the payment calculated over a 30-year amortization period. More detailed information on assumptions and methods is provided in Appendix A of this report. Appendix B contains a description of benefits included in the valuation.

The Schedule of Funding Progress below shows the recent history of the actuarial accrued liability, actuarial value of assets, their relationship and the relationship of the unfunded actuarial accrued liability to payroll.

Valuation Date	Accrued Liability (a)	Actuarial Value of Assets (AVA) (b)	Unfunded Liability (UL) (a)-(b)	Funded Ratios (AVA) (b)/(a)	Funded Ratios Market Value	Annual Covered Payroll (c)	UL As a % of Payroll [(a)-(b)]/(c)
06/30/08	$ 664,028,434	$ 625,633,414	$ 38,395,020	94.2%	95.0%	$ 56,811,031	67.6%
06/30/09	724,324,197	644,939,577	79,384,620	89.0%	63.8%	58,595,623	135.5%
06/30/10	758,325,561	662,601,684	95,723,877	87.4%	67.2%	54,798,082	174.7%
06/30/11	802,778,310	685,732,778	117,045,532	85.4%	74.5%	50,960,671	229.7%
06/30/12	830,040,184	685,764,728	144,275,456	82.6%	68.9%	44,759,135	322.3%

PLAN'S MAJOR BENEFIT PROVISIONS

Plan's Major Benefit Options

Shown below is a summary of the major optional benefits for which your agency has contracted. A description of principal standard and optional plan provisions is in the following section of this Appendix.

	Contract Package					
Benefit Provision	Receiving	Receiving	Active	Active	Active	
Benefit Formula			3.0% @ 50	3.0% @ 50	2.0% @ 50	
Social Security Coverage			No	No	No	
Full/Modified			Full	Full	Full	
Final Average Compensation Period			12 mos.	12 mos.	12 mos.	
Sick Leave Credit			Yes	Yes	Yes	
Non-Industrial Disability			Standard	Standard	Standard	
Industrial Disability			Yes	Yes	Yes	
Pre-Retirement Death Benefits						
Optional Settlement 2W			No	No	No	
1959 Survivor Benefit Level			Level 4	Level 4	Level 4	
Special			Yes	Yes	Yes	
Alternate (firefighters)			No	No	No	
Post-Retirement Death Benefits						
Lump Sum	$500	$500	$500	$500	$500	
Survivor Allowance (PRSA)	Yes	Yes	Yes	Yes	Yes	
COLA	2%	2%	2%	2%	2%	

APPENDICES

APPENDIX A

ACTUARIAL METHODS AND ASSUMPTIONS

- ACTUARIAL DATA
- ACTUARIAL METHODS
- ACTUARIAL ASSUMPTIONS
- MISCELLANEOUS

Actuarial Data

As stated in the Actuarial Certification, the data, which serves as the basis of this valuation, has been obtained from the various CalPERS databases. We have reviewed the valuation data and believe that it is reasonable and appropriate in aggregate. We are unaware of any potential data issues that would have a material effect on the results of this valuation, except that data does not always contain the latest salary information for former members now in reciprocal systems and does not recognize the potential for unusually large salary deviation in certain cases such as elected officials. Therefore, salary information in these cases may not be accurate. These situations are relatively infrequent, however, and when they do occur, they generally do not have a material impact on the employer contribution rates.

Actuarial Methods

Funding Method
The actuarial funding method used for the Retirement Program is the Entry Age Normal Cost Method. Under this method, projected benefits are determined for all members and the associated liabilities are spread in a manner that produces level annual cost as a percent of pay in each year from the age of hire (entry age) to the assumed retirement age. The cost allocated to the current fiscal year is called the normal cost.

The actuarial accrued liability for active members is then calculated as the portion of the total cost of the plan allocated to prior years. The actuarial accrued liability for members currently receiving benefits, for active members beyond the assumed retirement age, and for members entitled to deferred benefits, is equal to the present value of the benefits expected to be paid. No normal costs are applicable for these participants.

The excess of the total actuarial accrued liability over the actuarial value of plan assets is called the unfunded actuarial accrued liability. Funding requirements are determined by adding the normal cost and an amortization of the unfunded liability as a level percentage of assumed future payrolls. All changes in liability due to plan amendments, changes in actuarial assumptions, or changes in actuarial methodology are amortized separately over a 20-year period. All new gains or losses are tracked and amortized over a rolling 30-year period. If a plan's accrued liability exceeds the actuarial value of assets, the annual contribution with respect to the total unfunded liability may not be less than the amount produced by a 30-year amortization of the unfunded liability.

Additional contributions will be required for any plan or pool if their cash flows hamper adequate funding progress by preventing the expected funded status on a market value of assets basis to either:

- Increase by at least 15% by June 30, 2043; or
- Reach a level of 75% funded by June 30, 2043

The necessary additional contribution will be obtained by changing the amortization period of the gains and losses, except for those occurring in the fiscal years 2008-2009, 2009-2010, and 2010-2011 to a period, which will result in the satisfaction of the above criteria. CalPERS actuaries will reassess the criteria above when performing each future valuation to determine whether or not additional contributions are necessary.

An exception to the funding rules above is used whenever the application of such rules results in inconsistencies. In these cases, a "fresh start" approach is used. This simply means that the current unfunded actuarial liability is projected and amortized over a set number of years. As mentioned above, if the annual contribution on the total unfunded liability was less than the amount produced by a 30-year amortization of the unfunded liability, the plan actuary would implement a 30-year fresh start. However, in the case of a 30-year fresh start, just the unfunded liability not already in the (gain)/loss base (which is already amortized over 30 years), will go into the new fresh start base. In addition, a fresh start is needed in the following situations:

1) When a positive payment would be required on a negative unfunded actuarial liability (or conversely a negative payment on a positive unfunded actuarial liability); or

2) When there are excess assets, rather than an unfunded liability. In this situation, a 30-year fresh start is used, unless a longer fresh start is needed to avoid a negative total rate.

It should be noted that the actuary may choose to use a fresh start under other circumstances. In all cases, the fresh start period is set by the actuary at what is deemed appropriate; however, the period will not be less than five years, nor greater than 30 years.

Asset Valuation Method

In order to dampen the effect of short-term market value fluctuations on employer contribution rates, the following asset smoothing technique is used. First, an Expected Value of Assets is computed by bringing forward the prior year's Actuarial Value of Assets and the contributions received and benefits paid during the year at the assumed actuarial rate of return. The Actuarial Value of Assets is then computed as the Expected Value of Assets plus one-fifteenth of the difference between the actual Market Value of Assets and the Expected Value of Assets, as of the valuation date. However, in no case will the Actuarial Value of Assets be less than 80% or greater than 120% of the actual Market Value of Assets.

In June 2009, the CalPERS Board adopted changes to the asset smoothing method in order to phase in over a three-year period the impact of the negative -24 percent investment loss experienced by CalPERS in fiscal year 2008-2009. The following changes were adopted:

- Increase the corridor limits for the actuarial value of assets from 80 percent/120 percent of market value to 60 percent/140 percent of market value on June 30, 2009
- Reduce the corridor limits for the actuarial value of assets to 70 percent/130 percent of market value on June 30, 2010
- Return to the 80 percent/120 percent of market value corridor limits for the actuarial value of assets on June 30, 2011 and thereafter

On April 17, 2013, the CalPERS Board of Administration approved a recommendation to change the CalPERS amortization and rate smoothing policies. Beginning with the June 30, 2013 valuations that set the 2015-16 rates, CalPERS will employ an amortization and smoothing policy that will pay for all gains and losses over a fixed 30-year period with the increases or decreases in the rate spread directly over a 5-year period. Details of the agenda item can be found on our website CalPERS On-Line:
http://www.calpers.ca.gov/index.jsp?bc=/about/committee-meetings/archives/pension-201304.xml

Actuarial Assumptions

Economic Assumptions

Discount Rate

7.5% compounded annually (net of expenses). This assumption is used for all plans.

Termination Liability Discount Rate

The discount rate used for termination valuation is a weighted average of the 10 and 30-year US Treasury yields in effect on the valuation date that equal the duration of the pension liabilities. For purposes of this hypothetical termination liability estimate, the discount rate used, 2.98 percent, is the yield on the 30-year US Treasury Separate Trading of Registered Interest and Principal of Securities (STRIPS) as of June 30, 2012. Please note, as of June 30, 2013 the 30-year STRIPS yield was 3.72 percent.

Salary Growth

Annual increases vary by category, entry age, and duration of service. A sample of assumed increases are shown below.

Public Agency Miscellaneous

Duration of Service	(Entry Age 20)	(Entry Age 30)	(Entry Age 40)
0	0.1420	0.1240	0.0980
1	0.1190	0.1050	0.0850
2	0.1010	0.0910	0.0750
3	0.0880	0.0800	0.0670
4	0.0780	0.0710	0.0610
5	0.0700	0.0650	0.0560
10	0.0480	0.0460	0.0410
15	0.0430	0.0410	0.0360
20	0.0390	0.0370	0.0330
25	0.0360	0.0360	0.0330
30	0.0360	0.0360	0.0330

Public Agency Fire

Duration of Service	(Entry Age 20)	(Entry Age 30)	(Entry Age 40)
0	0.1050	0.1050	0.1020
1	0.0950	0.0940	0.0850
2	0.0870	0.0830	0.0700
3	0.0800	0.0750	0.0600
4	0.0740	0.0680	0.0510
5	0.0690	0.0620	0.0450
10	0.0510	0.0460	0.0350
15	0.0410	0.0390	0.0340
20	0.0370	0.0360	0.0330
25	0.0350	0.0350	0.0330
30	0.0350	0.0350	0.0330

Salary Growth (continued)

Public Agency Police

Duration of Service	(Entry Age 20)	(Entry Age 30)	(Entry Age 40)
0	0.1090	0.1090	0.1090
1	0.0930	0.0930	0.0930
2	0.0810	0.0810	0.0780
3	0.0720	0.0700	0.0640
4	0.0650	0.0610	0.0550
5	0.0590	0.0550	0.0480
10	0.0450	0.0420	0.0340
15	0.0410	0.0390	0.0330
20	0.0370	0.0360	0.0330
25	0.0350	0.0340	0.0330
30	0.0350	0.0340	0.0330

Public Agency County Peace Officers

Duration of Service	(Entry Age 20)	(Entry Age 30)	(Entry Age 40)
0	0.1290	0.1290	0.1290
1	0.1090	0.1060	0.1030
2	0.0940	0.0890	0.0840
3	0.0820	0.0770	0.0710
4	0.0730	0.0670	0.0610
5	0.0660	0.0600	0.0530
10	0.0460	0.0420	0.0380
15	0.0410	0.0380	0.0360
20	0.0370	0.0360	0.0340
25	0.0350	0.0340	0.0330
30	0.0350	0.0340	0.0330

Schools

Duration of Service	(Entry Age 20)	(Entry Age 30)	(Entry Age 40)
0	0.1080	0.0960	0.0820
1	0.0940	0.0850	0.0740
2	0.0840	0.0770	0.0670
3	0.0750	0.0700	0.0620
4	0.0690	0.0640	0.0570
5	0.0630	0.0600	0.0530
10	0.0450	0.0440	0.0410
15	0.0390	0.0380	0.0350
20	0.0360	0.0350	0.0320
25	0.0340	0.0340	0.0320
30	0.0340	0.0340	0.0320

- The Miscellaneous salary scale is used for Local Prosecutors.
- The Police salary scale is used for Other Safety, Local Sheriff, and School Police.

Overall Payroll Growth

3.00 percent compounded annually (used in projecting the payroll over which the unfunded liability is amortized). This assumption is used for all plans.

Inflation

2.75 percent compounded annually. This assumption is used for all plans.

Non-valued Potential Additional Liabilities

The potential liability loss for a cost-of-living increase exceeding the 2.75 percent inflation assumption, and any potential liability loss from future member service purchases are not reflected in the valuation.

Miscellaneous Loading Factors

Credit for Unused Sick Leave

Total years of service is increased by 1 percent for those plans that have accepted the provision providing Credit for Unused Sick Leave.

Conversion of Employer Paid Member Contributions (EPMC)

Total years of service is increased by the Employee Contribution Rate for those plans with the provision providing for the Conversion of Employer Paid Member Contributions (EPMC) during the final compensation period.

Norris Decision (Best Factors)

Employees hired prior to July 1, 1982 have projected benefit amounts increased in order to reflect the use of "Best Factors" in the calculation of optional benefit forms. This is due to a 1983 Supreme Court decision, known as the Norris decision, which required males and females to be treated equally in the determination of benefit amounts. Consequently, anyone already employed at that time is given the best possible conversion factor when optional benefits are determined. No loading is necessary for employees hired after July 1, 1982.

Termination Liability

The termination liabilities include a 7 percent contingency load. This load is for unforeseen improvements in mortality.

Demographic Assumptions

Pre-Retirement Mortality

Non-Industrial Death Rates vary by age and gender. Industrial Death rates vary by age. See sample rates in table below. The non-industrial death rates are used for all plans. The industrial death rates are used for Safety Plans (except for Local Prosecutor safety members where the corresponding Miscellaneous Plan does not have the Industrial Death Benefit).

	Non-Industrial Death (Not Job-Related)		Industrial Death (Job-Related)
Age	Male	Female	Male and Female
20	0.00047	0.00016	0.00003
25	0.00050	0.00026	0.00007
30	0.00053	0.00036	0.00010
35	0.00067	0.00046	0.00012
40	0.00087	0.00065	0.00013
45	0.00120	0.00093	0.00014
50	0.00176	0.00126	0.00015
55	0.00260	0.00176	0.00016
60	0.00395	0.00266	0.00017
65	0.00608	0.00419	0.00018
70	0.00914	0.00649	0.00019
75	0.01220	0.00878	0.00020
80	0.01527	0.01108	0.00021

Miscellaneous Plans usually have Industrial Death rates set to zero unless the agency has specifically contracted for Industrial Death benefits. If so, each Non-Industrial Death rate shown above will be split into two components; 99 percent will become the Non-Industrial Death rate and 1 percent will become the Industrial Death rate.

Post-Retirement Mortality

Rates vary by age, type of retirement and gender. See sample rates in table below. These rates are used for all plans.

	Healthy Recipients		Non-Industrially Disabled (Not Job-Related)		Industrially Disabled (Job-Related)	
Age	Male	Female	Male	Female	Male	Female
50	0.00239	0.00125	0.01632	0.01245	0.00443	0.00356
55	0.00474	0.00243	0.01936	0.01580	0.00563	0.00546
60	0.00720	0.00431	0.02293	0.01628	0.00777	0.00798
65	0.01069	0.00775	0.03174	0.01969	0.01388	0.01184
70	0.01675	0.01244	0.03870	0.03019	0.02236	0.01716
75	0.03080	0.02071	0.06001	0.03915	0.03585	0.02665
80	0.05270	0.03749	0.08388	0.05555	0.06926	0.04528
85	0.09775	0.07005	0.14035	0.09577	0.11799	0.08017
90	0.16747	0.12404	0.21554	0.14949	0.16575	0.13775
95	0.25659	0.21556	0.31025	0.23055	0.26108	0.23331
100	0.34551	0.31876	0.45905	0.37662	0.40918	0.35165
105	0.58527	0.56093	0.67923	0.61523	0.64127	0.60135
110	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000

The mortality assumptions are based on mortality rates resulting from the most recent CalPERS Experience Study adopted by the CalPERS Board, first used in the June 30, 2009 valuation. For purposes of the post-retirement mortality rates, those revised rates include 5 years of projected on-going mortality improvement using Scale AA published by the Society of Actuaries until June 30, 2010. There is no margin for future mortality improvement beyond the valuation date. The mortality assumption will be reviewed with the next experience study expected to be completed for the June 30, 2013 valuation to determine an appropriate margin to be used.

Marital Status

For active members, a percentage who are married upon retirement is assumed according to member category as shown in the following table.

Member Category	Percent Married
Miscellaneous Member	85%
Local Police	90%
Local Fire	90%
Other Local Safety	90%
School Police	90%

Age of Spouse

It is assumed that female spouses are 3 years younger than male spouses are. This assumption is used for all plans.

Terminated Members

It is assumed that terminated members refund immediately if non-vested. Terminated members who are vested are assumed to follow the same service retirement pattern as active members but with a load to reflect the expected higher rates of retirement, especially at lower ages. The following table shows the load factors that are applied to the service retirement assumption for active members to obtain the service retirement pattern for separated vested members:

Age	Load Factor
50	450%
51	250%
52 through 56	200%
57 through 60	150%
61 through 64	125%
65 and above	100% (no change)

Termination with Refund

Rates vary by entry age and service for Miscellaneous Plans. Rates vary by service for Safety Plans. See sample rates in tables below.

Public Agency Miscellaneous

Duration of Service	Entry Age 20	Entry Age 25	Entry Age 30	Entry Age 35	Entry Age 40	Entry Age 45
0	0.1742	0.1674	0.1606	0.1537	0.1468	0.1400
1	0.1545	0.1477	0.1409	0.1339	0.1271	0.1203
2	0.1348	0.1280	0.1212	0.1142	0.1074	0.1006
3	0.1151	0.1083	0.1015	0.0945	0.0877	0.0809
4	0.0954	0.0886	0.0818	0.0748	0.0680	0.0612
5	0.0212	0.0193	0.0174	0.0155	0.0136	0.0116
10	0.0138	0.0121	0.0104	0.0088	0.0071	0.0055
15	0.0060	0.0051	0.0042	0.0032	0.0023	0.0014
20	0.0037	0.0029	0.0021	0.0013	0.0005	0.0001
25	0.0017	0.0011	0.0005	0.0001	0.0001	0.0001
30	0.0005	0.0001	0.0001	0.0001	0.0001	0.0001
35	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

Public Agency Safety

Duration of Service	Fire	Police	County Peace Officer
0	0.0710	0.1013	0.0997
1	0.0554	0.0636	0.0782
2	0.0398	0.0271	0.0566
3	0.0242	0.0258	0.0437
4	0.0218	0.0245	0.0414
5	0.0029	0.0086	0.0145
10	0.0009	0.0053	0.0089
15	0.0006	0.0027	0.0045
20	0.0005	0.0017	0.0020
25	0.0003	0.0012	0.0009
30	0.0003	0.0009	0.0006
35	0.0003	0.0009	0.0006

The Police Termination and Refund rates are also used for Public Agency Local Prosecutors, Other Safety, Local Sheriff and School Police.

Schools

Duration of Service	Entry Age 20	Entry Age 25	Entry Age 30	Entry Age 35	Entry Age 40	Entry Age 45
0	0.1730	0.1627	0.1525	0.1422	0.1319	0.1217
1	0.1585	0.1482	0.1379	0.1277	0.1174	0.1071
2	0.1440	0.1336	0.1234	0.1131	0.1028	0.0926
3	0.1295	0.1192	0.1089	0.0987	0.0884	0.0781
4	0.1149	0.1046	0.0944	0.0841	0.0738	0.0636
5	0.0278	0.0249	0.0221	0.0192	0.0164	0.0135
10	0.0172	0.0147	0.0122	0.0098	0.0074	0.0049
15	0.0115	0.0094	0.0074	0.0053	0.0032	0.0011
20	0.0073	0.0055	0.0038	0.0020	0.0002	0.0002
25	0.0037	0.0023	0.0010	0.0002	0.0002	0.0002
30	0.0015	0.0003	0.0002	0.0002	0.0002	0.0002
35	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002

Termination with Vested Benefits

Rates vary by entry age and service for Miscellaneous Plans. Rates vary by service for Safety Plans. See sample rates in tables below.

Public Agency Miscellaneous

Duration of Service	Entry Age 20	Entry Age 25	Entry Age 30	Entry Age 35	Entry Age 40
5	0.0656	0.0597	0.0537	0.0477	0.0418
10	0.0530	0.0466	0.0403	0.0339	0.0000
15	0.0443	0.0373	0.0305	0.0000	0.0000
20	0.0333	0.0261	0.0000	0.0000	0.0000
25	0.0212	0.0000	0.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000	0.0000
35	0.0000	0.0000	0.0000	0.0000	0.0000

Public Agency Safety

Duration of Service	Fire	Police	County Peace Officer
5	0.0162	0.0163	0.0265
10	0.0061	0.0126	0.0204
15	0.0058	0.0082	0.0130
20	0.0053	0.0065	0.0074
25	0.0047	0.0058	0.0043
30	0.0045	0.0056	0.0030
35	0.0000	0.0000	0.0000

- When a member is eligible to retire, the termination with vested benefits probability is set to zero.
- After termination with vested benefits, a miscellaneous member is assumed to retire at age 59 and a safety member at age 54.
- The Police Termination with vested benefits rates are also used for Public Agency Local Prosecutors, Other Safety, Local Sheriff and School Police.

Schools

Duration of Service	Entry Age 20	Entry Age 25	Entry Age 30	Entry Age 35	Entry Age 40
5	0.0816	0.0733	0.0649	0.0566	0.0482
10	0.0629	0.0540	0.0450	0.0359	0.0000
15	0.0537	0.0440	0.0344	0.0000	0.0000
20	0.0420	0.0317	0.0000	0.0000	0.0000
25	0.0291	0.0000	0.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000	0.0000
35	0.0000	0.0000	0.0000	0.0000	0.0000

Non-Industrial (Not Job-Related) Disability

Rates vary by age and gender for Miscellaneous Plans. Rates vary by age and category for Safety Plans.

	Miscellaneous		Fire	Police	County Peace Officer	Schools	
Age	Male	Female	Male and Female	Male and Female	Male and Female	Male	Female
20	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
25	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
30	0.0002	0.0002	0.0001	0.0002	0.0001	0.0002	0.0001
35	0.0006	0.0009	0.0001	0.0003	0.0004	0.0006	0.0004
40	0.0015	0.0016	0.0001	0.0004	0.0007	0.0014	0.0009
45	0.0025	0.0024	0.0002	0.0005	0.0013	0.0028	0.0017
50	0.0033	0.0031	0.0005	0.0008	0.0018	0.0044	0.0030
55	0.0037	0.0031	0.0010	0.0013	0.0010	0.0049	0.0034
60	0.0038	0.0025	0.0015	0.0020	0.0006	0.0043	0.0024

- The Miscellaneous Non-Industrial Disability rates are used for Local Prosecutors.
- The Police Non-Industrial Disability rates are also used for Other Safety, Local Sheriff and School Police.

Industrial (Job-Related) Disability

Rates vary by age and category.

Age	Fire	Police	County Peace Officer
20	0.0002	0.0007	0.0003
25	0.0012	0.0032	0.0015
30	0.0025	0.0064	0.0031
35	0.0037	0.0097	0.0046
40	0.0049	0.0129	0.0063
45	0.0061	0.0161	0.0078
50	0.0074	0.0192	0.0101
55	0.0721	0.0668	0.0173
60	0.0721	0.0668	0.0173

- The Police Industrial Disability rates are also used for Local Sheriff and Other Safety.
- Fifty Percent of the Police Industrial Disability rates are used for School Police.
- One Percent of the Police Industrial Disability rates are used for Local Prosecutors.
- Normally, rates are zero for Miscellaneous Plans unless the agency has specifically contracted for Industrial Disability benefits. If so, each miscellaneous non-industrial disability rate will be split into two components: 50 percent will become the Non-Industrial Disability rate and 50 percent will become the Industrial Disability rate.

Service Retirement

Retirement rates vary by age, service, and formula, except for the safety ½ @ 55 and 2% @ 55 formulas, where retirement rates vary by age only.

Service Retirement

Public Agency Miscellaneous 1.5% @ 65

	Duration of Service					
Age	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.008	0.011	0.013	0.015	0.017	0.019
51	0.007	0.010	0.012	0.013	0.015	0.017
52	0.010	0.014	0.017	0.019	0.021	0.024
53	0.008	0.012	0.015	0.017	0.019	0.022
54	0.012	0.016	0.019	0.022	0.025	0.028
55	0.018	0.025	0.031	0.035	0.038	0.043
56	0.015	0.021	0.025	0.029	0.032	0.036
57	0.020	0.028	0.033	0.038	0.043	0.048
58	0.024	0.033	0.040	0.046	0.052	0.058
59	0.028	0.039	0.048	0.054	0.060	0.067
60	0.049	0.069	0.083	0.094	0.105	0.118
61	0.062	0.087	0.106	0.120	0.133	0.150
62	0.104	0.146	0.177	0.200	0.223	0.251
63	0.099	0.139	0.169	0.191	0.213	0.239
64	0.097	0.136	0.165	0.186	0.209	0.233
65	0.140	0.197	0.240	0.271	0.302	0.339
66	0.092	0.130	0.157	0.177	0.198	0.222
67	0.129	0.181	0.220	0.249	0.277	0.311
68	0.092	0.129	0.156	0.177	0.197	0.221
69	0.092	0.130	0.158	0.178	0.199	0.224
70	0.103	0.144	0.175	0.198	0.221	0.248

Public Agency Miscellaneous 2% @ 60

	Duration of Service					
Age	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.011	0.015	0.018	0.021	0.023	0.026
51	0.009	0.013	0.016	0.018	0.020	0.023
52	0.013	0.018	0.022	0.025	0.028	0.031
53	0.011	0.016	0.019	0.022	0.025	0.028
54	0.015	0.021	0.025	0.028	0.032	0.036
55	0.023	0.032	0.039	0.044	0.049	0.055
56	0.019	0.027	0.032	0.037	0.041	0.046
57	0.025	0.035	0.042	0.048	0.054	0.060
58	0.030	0.042	0.051	0.058	0.065	0.073
59	0.035	0.049	0.060	0.068	0.076	0.085
60	0.062	0.087	0.105	0.119	0.133	0.149
61	0.079	0.110	0.134	0.152	0.169	0.190
62	0.132	0.186	0.225	0.255	0.284	0.319
63	0.126	0.178	0.216	0.244	0.272	0.305
64	0.122	0.171	0.207	0.234	0.262	0.293
65	0.173	0.243	0.296	0.334	0.373	0.418
66	0.114	0.160	0.194	0.219	0.245	0.274
67	0.159	0.223	0.271	0.307	0.342	0.384
68	0.113	0.159	0.193	0.218	0.243	0.273
69	0.114	0.161	0.195	0.220	0.246	0.276
70	0.127	0.178	0.216	0.244	0.273	0.306

Service Retirement

Public Agency Miscellaneous 2% @ 55

Age	Duration of Service					
	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.015	0.020	0.024	0.029	0.033	0.039
51	0.013	0.016	0.020	0.024	0.027	0.033
52	0.014	0.018	0.022	0.027	0.030	0.036
53	0.017	0.022	0.027	0.032	0.037	0.043
54	0.027	0.034	0.041	0.049	0.056	0.067
55	0.050	0.064	0.078	0.094	0.107	0.127
56	0.045	0.057	0.069	0.083	0.095	0.113
57	0.048	0.061	0.074	0.090	0.102	0.122
58	0.052	0.066	0.080	0.097	0.110	0.131
59	0.060	0.076	0.092	0.111	0.127	0.151
60	0.072	0.092	0.112	0.134	0.153	0.182
61	0.089	0.113	0.137	0.165	0.188	0.224
62	0.128	0.162	0.197	0.237	0.270	0.322
63	0.129	0.164	0.199	0.239	0.273	0.325
64	0.116	0.148	0.180	0.216	0.247	0.294
65	0.174	0.221	0.269	0.323	0.369	0.439
66	0.135	0.171	0.208	0.250	0.285	0.340
67	0.133	0.169	0.206	0.247	0.282	0.336
68	0.118	0.150	0.182	0.219	0.250	0.297
69	0.116	0.147	0.179	0.215	0.246	0.293
70	0.138	0.176	0.214	0.257	0.293	0.349

Public Agency Miscellaneous 2.5% @ 55

Age	Duration of Service					
	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.026	0.033	0.040	0.048	0.055	0.062
51	0.021	0.026	0.032	0.038	0.043	0.049
52	0.021	0.026	0.032	0.038	0.043	0.049
53	0.026	0.033	0.040	0.048	0.055	0.062
54	0.043	0.054	0.066	0.078	0.089	0.101
55	0.088	0.112	0.136	0.160	0.184	0.208
56	0.055	0.070	0.085	0.100	0.115	0.130
57	0.061	0.077	0.094	0.110	0.127	0.143
58	0.072	0.091	0.111	0.130	0.150	0.169
59	0.083	0.105	0.128	0.150	0.173	0.195
60	0.088	0.112	0.136	0.160	0.184	0.208
61	0.083	0.105	0.128	0.150	0.173	0.195
62	0.121	0.154	0.187	0.220	0.253	0.286
63	0.105	0.133	0.162	0.190	0.219	0.247
64	0.105	0.133	0.162	0.190	0.219	0.247
65	0.143	0.182	0.221	0.260	0.299	0.338
66	0.105	0.133	0.162	0.190	0.219	0.247
67	0.105	0.133	0.162	0.190	0.219	0.247
68	0.105	0.133	0.162	0.190	0.219	0.247
69	0.105	0.133	0.162	0.190	0.219	0.247
70	0.125	0.160	0.194	0.228	0.262	0.296

Service Retirement

Public Agency Miscellaneous 2.7% @ 55

	Duration of Service					
Age	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.028	0.035	0.043	0.050	0.058	0.065
51	0.022	0.028	0.034	0.040	0.046	0.052
52	0.022	0.028	0.034	0.040	0.046	0.052
53	0.028	0.035	0.043	0.050	0.058	0.065
54	0.044	0.056	0.068	0.080	0.092	0.104
55	0.091	0.116	0.140	0.165	0.190	0.215
56	0.061	0.077	0.094	0.110	0.127	0.143
57	0.063	0.081	0.098	0.115	0.132	0.150
58	0.074	0.095	0.115	0.135	0.155	0.176
59	0.083	0.105	0.128	0.150	0.173	0.195
60	0.088	0.112	0.136	0.160	0.184	0.208
61	0.085	0.109	0.132	0.155	0.178	0.202
62	0.124	0.158	0.191	0.225	0.259	0.293
63	0.107	0.137	0.166	0.195	0.224	0.254
64	0.107	0.137	0.166	0.195	0.224	0.254
65	0.146	0.186	0.225	0.265	0.305	0.345
66	0.107	0.137	0.166	0.195	0.224	0.254
67	0.107	0.137	0.166	0.195	0.224	0.254
68	0.107	0.137	0.166	0.195	0.224	0.254
69	0.107	0.137	0.166	0.195	0.224	0.254
70	0.129	0.164	0.199	0.234	0.269	0.304

Public Agency Miscellaneous 3% @ 60

	Duration of Service					
Age	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.026	0.033	0.040	0.048	0.055	0.062
51	0.021	0.026	0.032	0.038	0.043	0.049
52	0.019	0.025	0.030	0.035	0.040	0.046
53	0.025	0.032	0.038	0.045	0.052	0.059
54	0.039	0.049	0.060	0.070	0.081	0.091
55	0.083	0.105	0.128	0.150	0.173	0.195
56	0.055	0.070	0.085	0.100	0.115	0.130
57	0.061	0.077	0.094	0.110	0.127	0.143
58	0.072	0.091	0.111	0.130	0.150	0.169
59	0.080	0.102	0.123	0.145	0.167	0.189
60	0.094	0.119	0.145	0.170	0.196	0.221
61	0.088	0.112	0.136	0.160	0.184	0.208
62	0.127	0.161	0.196	0.230	0.265	0.299
63	0.110	0.140	0.170	0.200	0.230	0.260
64	0.110	0.140	0.170	0.200	0.230	0.260
65	0.149	0.189	0.230	0.270	0.311	0.351
66	0.110	0.140	0.170	0.200	0.230	0.260
67	0.110	0.140	0.170	0.200	0.230	0.260
68	0.110	0.140	0.170	0.200	0.230	0.260
69	0.110	0.140	0.170	0.200	0.230	0.260
70	0.132	0.168	0.204	0.240	0.276	0.312

Service Retirement

Public Agency Fire ½ @ 55 and 2% @ 55

Age	Rate	Age	Rate
50	0.01588	56	0.11079
51	0.00000	57	0.00000
52	0.03442	58	0.09499
53	0.01990	59	0.04409
54	0.04132	60	1.00000
55	0.07513		

Public Agency Police ½ @ 55 and 2% @ 55

Age	Rate	Age	Rate
50	0.02552	56	0.06921
51	0.00000	57	0.05113
52	0.01637	58	0.07241
53	0.02717	59	0.07043
54	0.00949	60	1.00000
55	0.16674		

Public Agency Police 2%@ 50

	Duration of Service					
Age	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.014	0.014	0.014	0.014	0.025	0.045
51	0.012	0.012	0.012	0.012	0.023	0.040
52	0.026	0.026	0.026	0.026	0.048	0.086
53	0.052	0.052	0.052	0.052	0.096	0.171
54	0.070	0.070	0.070	0.070	0.128	0.227
55	0.090	0.090	0.090	0.090	0.165	0.293
56	0.064	0.064	0.064	0.064	0.117	0.208
57	0.071	0.071	0.071	0.071	0.130	0.232
58	0.063	0.063	0.063	0.063	0.115	0.205
59	0.140	0.140	0.140	0.140	0.174	0.254
60	0.140	0.140	0.140	0.140	0.172	0.251
61	0.140	0.140	0.140	0.140	0.172	0.251
62	0.140	0.140	0.140	0.140	0.172	0.251
63	0.140	0.140	0.140	0.140	0.172	0.251
64	0.140	0.140	0.140	0.140	0.172	0.251
65	1.000	1.000	1.000	1.000	1.000	1.000

- These rates also apply to Local Prosecutors, Local Sheriff, School Police and Other Safety.

Service Retirement

Public Agency Fire 2%@50

	Duration of Service					
Age	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.007	0.007	0.007	0.007	0.010	0.015
51	0.008	0.008	0.008	0.008	0.013	0.019
52	0.017	0.017	0.017	0.017	0.027	0.040
53	0.047	0.047	0.047	0.047	0.072	0.107
54	0.064	0.064	0.064	0.064	0.098	0.147
55	0.087	0.087	0.087	0.087	0.134	0.200
56	0.078	0.078	0.078	0.078	0.120	0.180
57	0.090	0.090	0.090	0.090	0.139	0.208
58	0.079	0.079	0.079	0.079	0.122	0.182
59	0.073	0.073	0.073	0.073	0.112	0.168
60	0.114	0.114	0.114	0.114	0.175	0.262
61	0.114	0.114	0.114	0.114	0.175	0.262
62	0.114	0.114	0.114	0.114	0.175	0.262
63	0.114	0.114	0.114	0.114	0.175	0.262
64	0.114	0.114	0.114	0.114	0.175	0.262
65	1.000	1.000	1.000	1.000	1.000	1.000

Public Agency Police 3%@ 55

	Duration of Service					
Age	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.019	0.019	0.019	0.019	0.040	0.060
51	0.024	0.024	0.024	0.024	0.049	0.074
52	0.024	0.024	0.024	0.024	0.051	0.077
53	0.059	0.059	0.059	0.059	0.121	0.183
54	0.069	0.069	0.069	0.069	0.142	0.215
55	0.116	0.116	0.116	0.116	0.240	0.363
56	0.076	0.076	0.076	0.076	0.156	0.236
57	0.058	0.058	0.058	0.058	0.120	0.181
58	0.076	0.076	0.076	0.076	0.157	0.237
59	0.094	0.094	0.094	0.094	0.193	0.292
60	0.141	0.141	0.141	0.141	0.290	0.438
61	0.094	0.094	0.094	0.094	0.193	0.292
62	0.118	0.118	0.118	0.118	0.241	0.365
63	0.094	0.094	0.094	0.094	0.193	0.292
64	0.094	0.094	0.094	0.094	0.193	0.292
65	1.000	1.000	1.000	1.000	1.000	1.000

- These rates also apply to Local Prosecutors, Local Sheriff, School Police and Other Safety.

Service Retirement

Public Agency Fire 3%@55

	Duration of Service					
Age	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.012	0.012	0.012	0.018	0.028	0.033
51	0.008	0.008	0.008	0.012	0.019	0.022
52	0.018	0.018	0.018	0.027	0.042	0.050
53	0.043	0.043	0.043	0.062	0.098	0.114
54	0.057	0.057	0.057	0.083	0.131	0.152
55	0.092	0.092	0.092	0.134	0.211	0.246
56	0.081	0.081	0.081	0.118	0.187	0.218
57	0.100	0.100	0.100	0.146	0.230	0.268
58	0.081	0.081	0.081	0.119	0.187	0.219
59	0.078	0.078	0.078	0.113	0.178	0.208
60	0.117	0.117	0.117	0.170	0.267	0.312
61	0.078	0.078	0.078	0.113	0.178	0.208
62	0.098	0.098	0.098	0.141	0.223	0.260
63	0.078	0.078	0.078	0.113	0.178	0.208
64	0.078	0.078	0.078	0.113	0.178	0.208
65	1.000	1.000	1.000	1.000	1.000	1.000

Public Agency Police 3%@ 50

	Duration of Service					
Age	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.070	0.070	0.070	0.131	0.193	0.249
51	0.050	0.050	0.050	0.095	0.139	0.180
52	0.061	0.061	0.061	0.116	0.171	0.220
53	0.069	0.069	0.069	0.130	0.192	0.247
54	0.071	0.071	0.071	0.134	0.197	0.255
55	0.090	0.090	0.090	0.170	0.250	0.322
56	0.069	0.069	0.069	0.130	0.191	0.247
57	0.080	0.080	0.080	0.152	0.223	0.288
58	0.087	0.087	0.087	0.164	0.242	0.312
59	0.090	0.090	0.090	0.170	0.251	0.323
60	0.135	0.135	0.135	0.255	0.377	0.485
61	0.090	0.090	0.090	0.170	0.251	0.323
62	0.113	0.113	0.113	0.213	0.314	0.404
63	0.090	0.090	0.090	0.170	0.251	0.323
64	0.090	0.090	0.090	0.170	0.251	0.323
65	1.000	1.000	1.000	1.000	1.000	1.000

- These rates also apply to Local Prosecutors, Local Sheriff, School Police and Other Safety.

Service Retirement

Public Agency Fire 3%@50

Age	Duration of Service					
	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.034	0.034	0.034	0.048	0.068	0.080
51	0.046	0.046	0.046	0.065	0.092	0.109
52	0.069	0.069	0.069	0.097	0.138	0.163
53	0.084	0.084	0.084	0.117	0.166	0.197
54	0.103	0.103	0.103	0.143	0.204	0.241
55	0.127	0.127	0.127	0.177	0.252	0.298
56	0.121	0.121	0.121	0.169	0.241	0.285
57	0.101	0.101	0.101	0.141	0.201	0.238
58	0.118	0.118	0.118	0.165	0.235	0.279
59	0.100	0.100	0.100	0.140	0.199	0.236
60	0.150	0.150	0.150	0.210	0.299	0.354
61	0.100	0.100	0.100	0.140	0.199	0.236
62	0.125	0.125	0.125	0.175	0.249	0.295
63	0.100	0.100	0.100	0.140	0.199	0.236
64	0.100	0.100	0.100	0.140	0.199	0.236
65	1.000	1.000	1.000	1.000	1.000	1.000

Schools 2%@ 55

Age	Duration of Service					
	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.005	0.009	0.013	0.015	0.016	0.018
51	0.005	0.010	0.014	0.017	0.019	0.021
52	0.006	0.012	0.017	0.020	0.022	0.025
53	0.007	0.014	0.019	0.023	0.026	0.029
54	0.012	0.024	0.033	0.039	0.044	0.049
55	0.024	0.048	0.067	0.079	0.088	0.099
56	0.020	0.039	0.055	0.065	0.072	0.081
57	0.021	0.042	0.059	0.070	0.078	0.087
58	0.025	0.050	0.070	0.083	0.092	0.103
59	0.029	0.057	0.080	0.095	0.105	0.118
60	0.037	0.073	0.102	0.121	0.134	0.150
61	0.046	0.090	0.126	0.149	0.166	0.186
62	0.076	0.151	0.212	0.250	0.278	0.311
63	0.069	0.136	0.191	0.225	0.251	0.281
64	0.067	0.133	0.185	0.219	0.244	0.273
65	0.091	0.180	0.251	0.297	0.331	0.370
66	0.072	0.143	0.200	0.237	0.264	0.295
67	0.067	0.132	0.185	0.218	0.243	0.272
68	0.060	0.118	0.165	0.195	0.217	0.243
69	0.067	0.133	0.187	0.220	0.246	0.275
70	0.066	0.131	0.183	0.216	0.241	0.270

Miscellaneous

Superfunded Status

Prior to enactment of the Public Employees' Pension Reform Act (PEPRA) that became effective January 1, 2013, a plan in superfunded status (actuarial value of assets exceeding present value of benefits) would normally pay a zero employer contribution rate while also being permitted to use its superfunded assets to pay its employees' normal member contributions.

However, Section 7522.52(a) of PEPRA states, "In any fiscal year a public employer's contribution to a defined benefit plan, in combination with employee contributions to that defined benefit plan, shall not be less than the total normal cost rate..." This means that not only must employers pay their employer normal cost regardless of plan surplus, but also, employers may no longer use superfunded assets to pay employee normal member contributions.

Internal Revenue Code Section 415

The limitations on benefits imposed by Internal Revenue Code Section 415 are taken into account in this valuation. Each year the impact of any changes in this limitation since the prior valuation is included and amortized as part of the actuarial gain or loss base. This results in lower contributions for those employers contributing to the Replacement Benefit Fund and protects CalPERS from prefunding expected benefits in excess of limits imposed by federal tax law.

Internal Revenue Code Section 401(a)(17)

The limitations on compensation imposed by Internal Revenue Code Section 401(a)(17) are taken into account in this valuation. Each year, the impact of any changes in the compensation limitation since the prior valuation is included and amortized as part of the actuarial gain or loss base.

PEPRA Assumptions

The Public Employees' Pension Reform Act of 2013 (PEPRA) mandated new benefit formulas and new member contributions for new members (as defined by PEPRA) hired after January 1, 2013. For non-pooled plans, these new members will first be reflected in the June 30, 2013 non-pooled plan valuations. New members in pooled plans will first be reflected in the new Miscellaneous and Safety risk pools created by the CalPERS Board in November 2012 in response to the passage of PEPRA, also beginning with the June 30, 2013 valuation. Different assumptions for these new PEPRA members will be disclosed in the 2013 valuation.

APPENDIX B

PRINCIPAL PLAN PROVISIONS

The following is a description of the principal plan provisions used in calculating costs and liabilities. We have indicated whether a plan provision is standard or optional. Standard benefits are applicable to all members while optional benefits vary among employers. Optional benefits that apply to a single period of time, such as Golden Handshakes, have not been included. Many of the statements in this summary are general in nature, and are intended to provide an easily understood summary of the complex Public Employees' Retirement Law. The law itself governs in all situations.

PEPRA Benefit Changes

The Public Employees' Pension Reform Act of 2013 (PEPRA) requires new benefits and member contributions for new members as defined by PEPRA, that are hired after January 1, 2013. For non-pooled plans, these members will first be reflected in June 30, 2013 non-pooled plan valuations. Members in pooled plans will be reflected in the new Miscellaneous and Safety risk pools created by the CalPERS Board in November 2012 in response to the passage of PEPRA, beginning with the June 30, 2013 valuation.

Service Retirement

Eligibility

A classic CalPERS member becomes eligible for Service Retirement upon attainment of age 50 with at least 5 years of credited service (total service across all CalPERS employers, and with certain other Retirement Systems with which CalPERS has reciprocity agreements). For employees hired into a plan with the 1.5% at 65 formula, eligibility for service retirement is age 55 with at least 5 years of service.

Benefit

The Service Retirement benefit is a monthly allowance equal to the product of the *benefit factor, years of service*, and *final compensation*.

- The *benefit factor* depends on the benefit formula specified in your agency's contract. The table below shows the factors for each of the available formulas. Factors vary by the member's age at retirement. Listed are the factors for retirement at whole year ages:

Miscellaneous Plan Formulas

Retirement Age	1.5% at 65	2% at 60	2% at 55	2.5% at 55	2.7% at 55	3% at 60
50	0.5000%	1.092%	1.426%	2.0%	2.0%	2.0%
51	0.5667%	1.156%	1.522%	2.1%	2.14%	2.1%
52	0.6334%	1.224%	1.628%	2.2%	2.28%	2.2%
53	0.7000%	1.296%	1.742%	2.3%	2.42%	2.3%
54	0.7667%	1.376%	1.866%	2.4%	2.56%	2.4%
55	0.8334%	1.460%	2.0%	2.5%	2.7%	2.5%
56	0.9000%	1.552%	2.052%	2.5%	2.7%	2.6%
57	0.9667%	1.650%	2.104%	2.5%	2.7%	2.7%
58	1.0334%	1.758%	2.156%	2.5%	2.7%	2.8%
59	1.1000%	1.874%	2.210%	2.5%	2.7%	2.9%
60	1.1667%	2.0%	2.262%	2.5%	2.7%	3.0%
61	1.2334%	2.134%	2.314%	2.5%	2.7%	3.0%
62	1.3000%	2.272%	2.366%	2.5%	2.7%	3.0%
63	1.3667%	2.418%	2.418%	2.5%	2.7%	3.0%
64	1.4334%	2.418%	2.418%	2.5%	2.7%	3.0%
65 & Up	1.5000%	2.418%	2.418%	2.5%	2.7%	3.0%

Safety Plan Formulas

Retirement Age	½ at 55 *	2% at 55	2% at 50	3% at 55	3% at 50
50	1.783%	1.426%	2.0%	2.40%	3.0%
51	1.903%	1.522%	2.14%	2.52%	3.0%
52	2.035%	1.628%	2.28%	2.64%	3.0%
53	2.178%	1.742%	2.42%	2.76%	3.0%
54	2.333%	1.866%	2.56%	2.88%	3.0%
55 & Up	2.5%	2.0%	2.7%	3.0%	3.0%

* For this formula, the benefit factor also varies by entry age. The factors shown are for members with an entry age of 35 or greater. If entry age is less than 35, then the age 55 benefit factor is 50% divided by the difference between age 55 and entry age. The benefit factor for ages prior to age 55 is the same proportion of the age 55 benefit factor as in the above table.

- The *years of service* is the amount credited by CalPERS to a member while he or she is employed in this group (or for other periods that are recognized under the employer's contract with CalPERS). For a member who has earned service with multiple CalPERS employers, the benefit from each employer is calculated separately according to each employer's contract, and then added together for the total allowance. An agency may contract for an optional benefit where any unused sick leave accumulated at the time of retirement will be converted to credited service at a rate of 0.004 years of service for each day of sick leave.

- The *final compensation* is the monthly average of the member's highest 36 or 12 consecutive months' full-time equivalent monthly pay (no matter which CalPERS employer paid this compensation). The standard benefit is 36 months. Employers have the option of providing a final compensation equal to the highest 12 consecutive months. Final compensation must be defined by the highest 36 consecutive months' pay under the 1.5% at 65 formula.

- Employees must be covered by Social Security with the 1.5% at 65 formula. Social Security is optional for all other benefit formulas. For employees covered by Social Security, the Modified formula is the standard benefit. Under this type of formula, the final compensation is offset by $133.33 (or by one third if the final compensation is less than $400). Employers may contract for the Full benefit with Social Security that will eliminate the offset applicable to the final compensation. For employees not covered by Social Security, the Full benefit is paid with no offsets. Auxiliary organizations of the CSUC system may elect reduced contribution rates, in which case the offset is $317 if members are not covered by Social Security or $513 if members are covered by Social Security.

- The Miscellaneous Service Retirement benefit is not capped. The Safety Service Retirement benefit is capped at 90 percent of final compensation.

Vested Deferred Retirement

Eligibility for Deferred Status
A CalPERS member becomes eligible for a deferred vested retirement benefit when he or she leaves employment, keeps his or her contribution account balance on deposit with CalPERS, **and** has earned at least 5 years of credited service (total service across all CalPERS employers, and with certain other Retirement Systems with which CalPERS has reciprocity agreements).

Eligibility to Start Receiving Benefits
The CalPERS member becomes eligible to receive the deferred retirement benefit upon satisfying the eligibility requirements for Deferred Status and upon attainment of age 50 (55 for employees hired into a 1.5% @ 65 plan).

Benefit
The vested deferred retirement benefit is the same as the Service Retirement benefit, where the benefit factor is based on the member's age at allowance commencement. For members who have earned service with multiple CalPERS employers, the benefit from each employer is calculated separately according to each employer's contract, and then added together for the total allowance.

Non-Industrial (Non-Job Related) Disability Retirement

Eligibility
A CalPERS member is eligible for Non-Industrial Disability Retirement if he or she becomes *disabled* and has at least 5 years of credited service (total service across all CalPERS employers, and with certain other Retirement Systems with which CalPERS has reciprocity agreements). There is no special age requirement. *Disabled* means the member is unable to perform his or her job because of an illness or injury, which is expected to be permanent or to last indefinitely. The illness or injury does not have to be job related. A CalPERS member must be actively employed by any CalPERS employer at the time of disability in order to be eligible for this benefit.

Standard Benefit
The standard Non-Industrial Disability Retirement benefit is a monthly allowance equal to 1.8 percent of final compensation, multiplied by *service*, which is determined as follows:

- *Service* is CalPERS credited service, for members with less than 10 years of service or greater than 18.518 years of service; or

- *Service* is CalPERS credited service plus the additional number of years that the member would have worked until age 60, for members with at least 10 years but not more than 18.518 years of service. The maximum benefit in this case is 33 1/3 percent of Final Compensation.

Improved Benefit
Employers have the option of providing the improved Non-Industrial Disability Retirement benefit. This benefit provides a monthly allowance equal to 30% of final compensation for the first 5 years of service, plus 1% for each additional year of service to a maximum of 50% of final compensation.

Members who are eligible for a larger service retirement benefit may choose to receive that benefit in lieu of a disability benefit. Members eligible to retire, and who have attained the normal retirement age determined by their service retirement benefit formula, will receive the same dollar amount for disability retirement as that payable for service retirement. For members who have earned service with multiple CalPERS employers, the benefit attributed to each employer is the total disability allowance multiplied by the ratio of service with a particular employer to the total CalPERS service.

Industrial (Job Related) Disability Retirement

All safety members have this benefit. For miscellaneous members, employers have the option of providing this benefit. An employer may choose to provide the Increased benefit option or the Improved benefit option.

Eligibility
An employee is eligible for Industrial Disability Retirement if he or she becomes disabled while working, where disabled means the member is unable to perform the duties of the job because of a work-related illness or injury, which is, expected to be permanent or to last indefinitely. A CalPERS member who has left active employment within this group is not eligible for this benefit, except to the extent described below.

Standard Benefit
The standard Industrial Disability Retirement benefit is a monthly allowance equal to 50 percent of final compensation.

Increased Benefit (75 percent of Final Compensation)
The increased Industrial Disability Retirement benefit is a monthly allowance equal to 75 percent final compensation for total disability.

Improved Benefit (50 percent to 90 percent of Final Compensation)
The improved Industrial Disability Retirement benefit is a monthly allowance equal to the Workman's Compensation Appeals Board permanent disability rate percentage (if 50 percent or greater, with a maximum of 90 percent) times the final compensation.

For a CalPERS member not actively employed in this group who became disabled while employed by some other CalPERS employer, the benefit is a return of accumulated member contributions with respect to employment in this group. With the standard or increased benefit, a member may also choose to receive the annuitization of the accumulated member contributions.

If a member is eligible for Service Retirement and if the Service Retirement benefit is more than the Industrial Disability Retirement benefit, the member may choose to receive the larger benefit.

Post-Retirement Death Benefit

Standard Lump Sum Payment
Upon the death of a retiree, a one-time lump sum payment of $500 will be made to the retiree's designated survivor(s), or to the retiree's estate.

Improved Lump Sum Payment
Employers have the option of providing an improved lump sum death benefit of $600, $2,000, $3,000, $4,000 or $5,000.

Form of Payment for Retirement Allowance

Standard Form of Payment
Generally, the retirement allowance is paid to the retiree in the form of an annuity for as long as he or she is alive. The retiree may choose to provide for a portion of his or her allowance to be paid to any designated beneficiary after the retiree's death. CalPERS provides for a variety of such benefit options, which the retiree pays for by taking a reduction in his or her retirement allowance. Such reduction takes into account the amount to be provided to the beneficiary and the probable duration of payments (based on the ages of the member and beneficiary) made subsequent to the member's death.

Improved Form of Payment (Post Retirement Survivor Allowance)
Employers have the option to contract for the post retirement survivor allowance.

For retirement allowances with respect to service subject to the modified formula, 25 percent of the retirement allowance will automatically be continued to certain statutory beneficiaries upon the death of the retiree, without a reduction in the retiree's allowance. For retirement allowances with respect to service subject to the full or supplemental formula, 50 percent of the retirement allowance will automatically be continued to certain statutory beneficiaries upon the death of the retiree, without a reduction in the retiree's allowance. This additional benefit is often referred to as post retirement survivor allowance (PRSA) or simply as survivor continuance.

In other words, 25 percent or 50 percent of the allowance, the continuance portion, is paid to the retiree for as long as he or she is alive, and that same amount is continued to the retiree's spouse (or if no eligible spouse, to unmarried children until they attain age 18; or, if no eligible children, to a qualifying dependent parent) for the rest of his or her lifetime. This benefit will not be discontinued in the event the spouse remarries.

The remaining 75 percent or 50 percent of the retirement allowance, which may be referred to as the option portion of the benefit, is paid to the retiree as an annuity for as long as he or she is alive. Or, the retiree may choose to provide for some of this option portion to be paid to any designated beneficiary after the retiree's death. Benefit options applicable to the option portion are the same as those offered with the standard form. The reduction is calculated in the same manner but is applied only to the option portion.

Pre-Retirement Death Benefits

Basic Death Benefit

This is a standard benefit.

Eligibility
An employee's beneficiary (or estate) may receive the Basic Death benefit if the member dies while actively employed. A CalPERS member must be actively employed with the CalPERS employer providing this benefit to be eligible for this benefit. A member's survivor who is eligible for any other pre-retirement death benefit may choose to receive that death benefit instead of this Basic Death benefit.

Benefit
The Basic Death Benefit is a lump sum in the amount of the member's accumulated contributions, where interest is currently credited at 7.5 percent per year, plus a lump sum in the amount of one month's salary for each completed year of current service, up to a maximum of six months' salary. For purposes of this benefit, one month's salary is defined as the member's average monthly full-time rate of compensation during the 12 months preceding death.

1957 Survivor Benefit

This is a standard benefit.

Eligibility
An employee's *eligible survivor(s)* may receive the 1957 Survivor benefit if the member dies while actively employed, has attained at least age 50, and has at least 5 years of credited service (total service across all CalPERS employers and with certain other Retirement Systems with which CalPERS has reciprocity agreements). A CalPERS member must be actively employed with the CalPERS employer providing this benefit to be eligible for this benefit. An eligible survivor means the surviving spouse to whom the member was married at least one year before death or, if there is no eligible spouse, to the member's unmarried children under age 18. A member's survivor who is eligible for any other pre-retirement death benefit may choose to receive that death benefit instead of this 1957 Survivor benefit.

Benefit
The 1957 Survivor benefit is a monthly allowance equal to one-half of the unmodified Service Retirement benefit that the member would have been entitled to receive if the member had retired on the date of his or her death. If the benefit is payable to the spouse, the benefit is discontinued upon the death of the spouse. If the benefit is payable to a dependent child, the benefit will be discontinued upon death or attainment of age 18, unless the child is disabled. The total amount paid will be at least equal to the Basic Death benefit.

Optional Settlement 2W Death Benefit

This is an optional benefit.

Eligibility
An employee's *eligible survivor* may receive the Optional Settlement 2W Death benefit if the member dies while actively employed, has attained at least age 50, and has at least 5 years of credited service (total service across all CalPERS employers and with certain other Retirement Systems with which CalPERS has reciprocity agreements). A CalPERS member who is no longer actively employed with **any** CalPERS employer is not eligible for this benefit. An *eligible survivor* means the surviving spouse to whom the member was married at least one year before death. A member's survivor who is eligible for any other pre-retirement death benefit may choose to receive that death benefit instead of this Optional Settlement 2W Death benefit.

Benefit
The Optional Settlement 2W Death benefit is a monthly allowance equal to the Service Retirement benefit that the member would have received had the member retired on the date of his or her death and elected Optional Settlement 2W. (A retiree who elects Optional Settlement 2W receives an allowance that has been reduced so that it will continue to be paid after his or her death to a surviving beneficiary.) The allowance is payable as long as the surviving spouse lives, at which time it is continued to any unmarried children under age 18, if applicable. The total amount paid will be at least equal to the Basic Death Benefit.

Special Death Benefit

This is a standard benefit for safety members. An employer may elect to provide this benefit for miscellaneous members.

Eligibility
An employee's *eligible survivor(s)* may receive the Special Death benefit if the member dies while actively employed and the death is job-related. A CalPERS member who is no longer actively employed with **any** CalPERS employer is not eligible for this benefit. An *eligible survivor* means the surviving spouse to whom the member was married prior to the onset of the injury or illness that resulted in death. If there is no eligible spouse, an eligible survivor means the member's unmarried children under age 22. An eligible survivor who chooses to receive this benefit will not receive any other death benefit.

Benefit
The Special Death benefit is a monthly allowance equal to 50% of final compensation, and will be increased whenever the compensation paid to active employees is increased but ceasing to increase when the member would have attained age 50. The allowance is payable to the surviving spouse until death at which time the allowance is continued to any unmarried children under age 22. There is a guarantee that the total amount paid will at least equal the Basic Death Benefit.

If the member's death is the result of an accident or injury caused by external violence or physical force incurred in the performance of the member's duty, and there are *eligible* surviving children (*eligible* means unmarried children under age 22) in addition to an eligible spouse, then an **additional monthly allowance** is paid equal to the following:

- if 1 eligible child: 12.5% of final compensation
- if 2 eligible children: 20.0% of final compensation
- if 3 or more eligible children: 25.0% of final compensation

Alternate Death Benefit for Local Fire Members

This is an optional benefit available only to local fire members.

Eligibility
An employee's *eligible survivor(s)* may receive the Alternate Death benefit in lieu of the Basic Death Benefit or the 1957 Survivor Benefit if the member dies while actively employed and has at least 20 years of total CalPERS service. A CalPERS member who is no longer actively employed with **any** CalPERS employer is not eligible for this benefit. An *eligible survivor* means the surviving spouse to whom the member was married prior to the onset of the injury or illness that resulted in death. If there is no eligible spouse, an eligible survivor means the member's unmarried children under age 18.

Benefit
The Alternate Death benefit is a monthly allowance equal to the Service Retirement benefit that the member would have received had the member retired on the date of his or her death and elected Optional Settlement 2W. (A retiree who elects Optional Settlement 2W receives an allowance that has been reduced so that it will continue to be paid after his or her death to a surviving beneficiary.) If the member has not yet attained age 50, the benefit is equal to that which would be payable if the member had retired at age 50, based on service credited at the time of death. The allowance is payable as long as the surviving spouse lives, at which time it is continued to any unmarried children under age 18, if applicable. The total amount paid will be at least equal to the Basic Death Benefit.

Cost-of-Living Adjustments (COLA)

Standard Benefit
Beginning the second calendar year after the year of retirement, retirement and survivor allowances will be annually adjusted on a compound basis by 2 percent.

Improved Benefit
Employers have the option of providing any of these improved cost-of-living adjustments by contracting for any one of these Class 1 optional benefits. An improved COLA is not available in conjunction with the 1.5% at 65 formula.

Beginning the second calendar year after the year of retirement, retirement and survivor allowances will be annually adjusted on a compound basis by either 3 percent, 4 percent or 5 percent. However, the cumulative adjustment may not be greater than the cumulative change in the Consumer Price Index since the date of retirement.

Purchasing Power Protection Allowance (PPPA)

Retirement and survivor allowances are protected against inflation by PPPA. PPPA benefits are cost-of-living adjustments that are intended to maintain an individual's allowance at 80 percent of the initial allowance at retirement adjusted for inflation since retirement. The PPPA benefit will be coordinated with other cost-of-living adjustments provided under the plan.

Employee Contributions

Each employee contributes toward his or her retirement based upon the retirement formula. The standard employee contribution is as described below.

- The percent contributed below the monthly compensation breakpoint is 0 percent.
- The monthly compensation breakpoint is $0 for full and supplemental formula members and $133.33 for employees covered by the modified formula.
- The percent contributed above the monthly compensation breakpoint depends upon the benefit formula, as shown in the table below.

Benefit Formula	Percent Contributed above the Breakpoint
Miscellaneous, 1.5% at 65	2%
Miscellaneous, 2% at 60	7%
Miscellaneous, 2% at 55	7%
Miscellaneous, 2.5% at 55	8%
Miscellaneous, 2.7% at 55	8%
Miscellaneous, 3% at 60	8%
Safety, 1/2 at 55	Varies by entry age
Safety, 2% at 55	7%
Safety, 2% at 50	9%
Safety, 3% at 55	9%
Safety, 3% at 50	9%

The employer may choose to "pick-up" these contributions for the employees (Employer Paid Member Contributions or EPMC). An employer may also include Employee Cost Sharing in the contract, where employees contribute an additional percentage of compensation based on any optional benefit for which a contract amendment was made on or after January 1, 1979.

Auxiliary organizations of the CSUC system may elect reduced contribution rates, in which case the offset is $317 and the contribution rate is 6 percent if members are not covered by Social Security. If members are covered by Social Security, the offset is $513 and the contribution rate is 5 percent.

Refund of Employee Contributions

If the member's service with the employer ends, and if the member does not satisfy the eligibility conditions for any of the retirement benefits above, the member may elect to receive a refund of his or her employee contributions, which are credited annually with 6 percent interest.

1959 Survivor Benefit

This is a pre-retirement death benefit available only to members not covered by Social Security. Any agency joining CalPERS subsequent to 1993 was required to provide this benefit if the members were not covered by Social Security. The benefit is optional for agencies joining CalPERS prior to 1994. Levels 1, 2 and 3 are now closed. Any new agency or any agency wishing to add this benefit or increase the current level must choose the 4th or Indexed Level.

This benefit is not included in the results presented in this valuation. More information on this benefit is available on the CalPERS website at www.calpers.ca.gov.

APPENDIX C

PARTICIPANT DATA

- SUMMARY OF VALUATION DATA
- ACTIVE MEMBERS
- TRANSFERRED AND TERMINATED MEMBERS
- RETIRED MEMBERS AND BENEFICIARIES

Summary of Valuation Data

	June 30, 2011	June 30, 2012
1. **Active Members**		
a) Counts	552	486
b) Average Attained Age	39.31	39.46
c) Average Entry Age to Rate Plan	27.20	27.13
d) Average Years of Service	12.11	12.33
e) Average Annual Covered Pay	$ 92,320	$ 92,097
f) Annual Covered Payroll	50,960,671	44,759,135
g) Projected Annual Payroll for Contribution Year	55,686,101	48,909,515
h) Present Value of Future Payroll	483,841,874	413,640,791
2. **Transferred Members**		
a) Counts	99	152
b) Average Attained Age	40.33	39.44
c) Average Years of Service	3.01	4.84
d) Average Annual Covered Pay	$ 83,545	$ 83,603
3. **Terminated Members**		
a) Counts	101	101
b) Average Attained Age	40.13	40.69
c) Average Years of Service	2.46	3.07
d) Average Annual Covered Pay	$ 53,739	$ 59,185
4. **Retired Members and Beneficiaries**		
a) Counts	718	746
b) Average Attained Age	64.62	64.58
c) Average Annual Benefits	$ 57,110	$ 59,398
5. **Active to Retired Ratio** [(1a) / (4a)]	0.77	0.65

Counts of members included in the valuation are counts of the records processed by the valuation. Multiple records may exist for those who have service in more than one valuation group. This does not result in double counting of liabilities.

Active Members

Counts of members included in the valuation are counts of the records processed by the valuation. Multiple records may exist for those who have service in more than one valuation group. This does not result in double counting of liabilities.

Distribution of Active Members by Age and Service

	Years of Service at Valuation Date						
Attained Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-25**	**25+**	**Total**
15-24	10	0	0	0	0	0	10
25-29	25	14	1	0	0	0	40
30-34	17	58	18	0	0	0	93
35-39	7	31	40	12	0	0	90
40-44	8	28	36	44	24	0	140
45-49	0	3	14	29	39	13	98
50-54	0	1	1	7	4	1	14
55-59	0	0	0	1	0	0	1
60-64	0	0	0	0	0	0	0
65 and over	0	0	0	0	0	0	0
All Ages	67	135	110	93	67	14	486

Distribution of Average Annual Salaries by Age and Service

	Years of Service at Valuation Date						
Attained Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-25**	**25+**	**Average**
15-24	$55,623	$0	$0	$0	$0	$0	$55,623
25-29	62,512	79,506	91,248	0	0	0	69,178
30-34	68,302	82,475	86,900	0	0	0	80,740
35-39	72,627	81,624	93,927	102,309	0	0	89,150
40-44	69,296	82,800	90,104	104,566	119,275	0	97,000
45-49	0	78,659	89,892	100,640	113,918	133,897	108,128
50-54	0	89,569	86,754	98,584	149,601	145,597	115,029
55-59	0	0	0	116,500	0	0	116,500
60-64	0	0	0	0	0	0	0
65 and over	0	0	0	0	0	0	0
All Ages	$64,820	$82,007	$90,923	$102,729	$117,968	$134,733	$92,097

Transferred and Terminated Members

Distribution of Transfers to Other CalPERS Plans by Age and Service

	Years of Service at Valuation Date							
Attained Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-25**	**25+**	**Total**	**Average Salary**
15-24	0	0	0	0	0	0	0	$0
25-29	13	4	0	0	0	0	17	74,988
30-34	24	7	1	0	0	0	32	79,437
35-39	17	4	1	1	0	0	23	80,332
40-44	30	9	6	3	2	0	50	88,081
45-49	9	3	2	1	2	1	18	88,664
50-54	7	2	0	0	0	0	9	81,678
55-59	2	0	0	0	0	0	2	102,217
60-64	1	0	0	0	0	0	1	103,671
65 and over	0	0	0	0	0	0	0	0
All Ages	103	29	10	5	4	1	152	83,603

Distribution of Terminated Participants with Funds on Deposit by Age and Service

	Years of Service at Valuation Date							
Attained Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-25**	**25+**	**Total**	**Average Salary**
15-24	0	0	0	0	0	0	0	$0
25-29	9	0	0	0	0	0	9	62,107
30-34	18	1	0	0	0	0	19	54,309
35-39	16	0	1	0	0	0	17	51,648
40-44	20	3	2	1	0	0	26	57,083
45-49	11	2	2	1	2	0	18	74,152
50-54	8	0	0	0	0	0	8	63,516
55-59	2	0	1	0	0	0	3	37,960
60-64	0	0	0	0	0	0	0	0
65 and over	1	0	0	0	0	0	1	67,929
All Ages	85	6	6	2	2	0	101	59,185

Retired Members and Beneficiaries

Distribution of Retirees and Beneficiaries by Age and Retirement Type*

Attained Age	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 30	0	0	0	0	0	0	0
30-34	0	0	3	0	0	0	3
35-39	0	1	5	0	0	0	6
40-44	0	1	29	0	0	0	30
45-49	0	0	29	0	0	0	29
50-54	62	1	26	0	2	1	92
55-59	65	0	42	0	1	6	114
60-64	60	0	42	0	0	10	112
65-69	70	2	48	0	3	14	137
70-74	39	1	24	0	1	12	77
75-79	33	1	13	0	1	16	64
80-84	26	0	5	0	0	17	48
85 and Over	11	0	3	0	1	19	34
All Ages	366	7	269	0	9	95	746

Distribution of Average Annual Amounts for Retirees and Beneficiaries by Age and Retirement Type*

Attained Age	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Average
Under 30	$0	$0	$0	$0	$0	$0	$0
30-34	0	0	37,653	0	0	0	37,653
35-39	0	25,061	42,476	0	0	0	39,573
40-44	0	9,825	41,542	0	0	0	40,485
45-49	0	0	41,841	0	0	0	41,841
50-54	94,046	13,005	44,632	0	72,030	53,315	78,279
55-59	84,658	0	69,269	0	77,421	52,357	77,225
60-64	78,676	0	67,229	0	0	33,654	70,364
65-69	67,119	44,295	58,580	0	29,920	34,289	59,625
70-74	56,529	34,991	54,680	0	30,646	40,864	52,896
75-79	45,419	24,738	57,273	0	35,445	32,046	44,004
80-84	39,341	0	44,876	0	0	19,620	32,933
85 and Over	42,034	0	36,550	0	25,684	21,581	29,640
All Ages	$70,878	$28,030	$55,166	$0	$44,780	$30,850	$59,398

Retired Members and Beneficiaries (continued)

Distribution of Retirees and Beneficiaries by Years Retired and Retirement Type*

Years Retired	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 5 Yrs	110	1	55	0	0	28	194
5-9	71	1	68	0	0	27	167
10-14	77	1	48	0	0	12	138
15-19	35	2	37	0	1	9	84
20-24	35	0	35	0	4	10	84
25-29	29	0	14	0	2	4	49
30 and Over	9	2	12	0	2	5	30
All Years	366	7	269	0	9	95	746

Distribution of Average Annual Amounts for Retirees and Beneficiaries by Years Retired and Retirement Type*

Years Retired	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Average
Under 5 Yrs	$92,300	$25,061	$63,962	$0	$0	$36,689	$75,893
5-9	77,008	9,825	68,594	0	0	33,004	66,065
10-14	68,285	70,744	56,488	0	0	20,821	60,072
15-19	49,079	23,998	43,049	0	76,983	34,479	44,594
20-24	51,167	0	44,575	0	51,996	24,200	45,249
25-29	40,361	0	37,270	0	30,861	24,309	37,780
30 and Over	42,624	21,292	22,591	0	28,165	22,589	28,886
All Years	$70,878	$28,030	$55,166	$0	$44,780	$30,850	$59,398

* Counts of members do not include alternate payees receiving benefits while the member is still working. Therefore, the total counts may not match information on page 25 of the report. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

APPENDIX D

GLOSSARY OF ACTUARIAL TERMS

Glossary of Actuarial Terms

Accrued Liability *(also called Actuarial Accrued Liability or Entry Age Normal Accrued Liability)*
The total dollars needed as of the valuation date to fund all benefits earned in the past for *current* members.

Actuarial Assumptions
Assumptions made about certain events that will affect pension costs. Assumptions generally can be broken down into two categories: demographic and economic. Demographic assumptions include such things as mortality, disability and retirement rates. Economic assumptions include discount rate, salary growth and inflation.

Actuarial Methods
Procedures employed by actuaries to achieve certain funding goals of a pension plan. Actuarial methods include funding method, setting the length of time to fund the Accrued Liability and determining the Actuarial Value of Assets.

Actuarial Valuation
The determination, as of a valuation date, of the Normal Cost, Accrued liability, Actuarial Value of Assets and related actuarial present values for a pension plan. These valuations are performed annually or when an employer is contemplating a change to their plan provisions.

Actuarial Value of Assets
The Actuarial Value of Assets used for funding purposes is obtained through an asset smoothing technique where investment gains and losses are partially recognized in the year they are incurred, with the remainder recognized in subsequent years.

This method helps to dampen large fluctuations in the employer contribution rate.

Amortization Bases
Separate payment schedules for different portions of the Unfunded Liability. The total Unfunded Liability of a Risk Pool or non-pooled plan can be segregated by "cause," creating "bases" and each such base will be separately amortized and paid for over a specific period of time. However, all bases are amortized using investment and payroll assumptions from the current valuation. This can be likened to a home having a first mortgage of 24 years remaining payments and a second mortgage that has 10 years remaining payments. Each base or each mortgage note has its own terms (payment period, principal, etc.)

Generally, in an actuarial valuation, the separate bases consist of changes in unfunded liability due to contract amendments, actuarial assumption changes, actuarial methodology changes, and or gains and losses. Payment periods are determined by Board policy and vary based on the cause of the change.

Amortization Period
The number of years required to pay off an Amortization Base.

Annual Required Contributions (ARC)
The employer's periodic required annual contributions to a defined benefit pension plan as set forth in GASB Statement No. 27, calculated in accordance with the plan assumptions. The ARC is determined by multiplying the employer contribution rate by the payroll reported to CalPERS for the applicable fiscal year. However, if this contribution is fully prepaid in a lump sum, then the dollar value of the ARC is equal to the Lump Sum Prepayment.

Classic Member (under PEPRA)
A classic member is a member who joined CalPERS prior to January, 1, 2013 and who is not defined as a new member under PEPRA. (See definition of new member below)

Discount Rate Assumption
The actuarial assumption that was called "investment return" in earlier CalPERS reports or "actuarial interest rate" in Section 20014 of the California Public Employees' Retirement Law (PERL).

Entry Age

The earliest age at which a plan member begins to accrue benefits under a defined benefit pension plan. In most cases, this is the age of the member on their date of hire.

Entry Age Normal Cost Method

An actuarial cost method designed to fund a member's total plan benefit over the course of his or her career. This method is designed to yield a rate expressed as a level percentage of payroll.
(The assumed retirement age less the entry age is the amount of time required to fund a member's total benefit. Generally, the older a member on the date of hire, the greater the entry age normal cost. This is mainly because there is less time to earn investment income to fund the future benefits.)

Fresh Start

A Fresh Start is when multiple amortization bases are collapsed to one base and amortized together over a new funding period.

Funded Status

A measure of how well funded, or how "on track" a plan or risk pool is with respect to assets verses accrued liabilities. A ratio greater than 100% means the plan or risk pool has more assets than liabilities and a ratio less than 100% means liabilities are greater than assets. A funded ratio based on the Actuarial Value of Assets indicates the progress toward fully funding the plan using the actuarial cost methods and assumptions. A funded ratio based on the Market Value of Assets indicates the short-term solvency of the plan.

GASB 27

Statement No. 27 of the Governmental Accounting Standards Board. The accounting standard governing a state or local governmental employer's accounting for pensions.

GASB 68

Statement No. 68 of the Governmental Accounting Standards Board. The accounting standard governing a state or local governmental employer's accounting and financial reporting for pensions. GASB 68 replaces GASB 27 effective the first fiscal year beginning after June 15, 2014.

New Member (under PEPRA)

A new member includes an individual who becomes a member of a public retirement system for the first time on or after January 1, 2013, and who was not a member of another public retirement system prior to that date, and who is not subject to reciprocity with another public retirement system.

Normal Cost

The annual cost of service accrual for the upcoming fiscal year for active employees. The normal cost should be viewed as the long term contribution rate.

Pension Actuary

A business professional that is authorized by the Society of Actuaries, and the American Academy of Actuaries to perform the calculations necessary to properly fund a pension plan.

PEPRA

The California **P**ublic **E**mployees' **P**ension **R**eform **A**ct of 2013

Prepayment Contribution

A payment made by the employer to reduce or eliminate the year's required employer contribution.

Present Value of Benefits (PVB)

The total dollars needed as of the valuation date to fund all benefits earned in the past or expected to be earned in the future for *current* members.

Rolling Amortization Period
An amortization period that remains the same each year, rather than declining.

Superfunded
A condition existing when a plan's Actuarial Value of Assets exceeds its Present Value of Benefits. Prior to the passage of PEPRA, when this condition existed on a given valuation date for a given plan, employee contributions for the rate year covered by that valuation could be waived.

Unfunded Liability
When a plan or pool's Actuarial Value of Assets is less than its Accrued Liability, the difference is the plan or pool's Unfunded Liability. If the Unfunded Liability is positive, the plan or pool will have to pay contributions exceeding the Normal Cost.

EXHIBIT 7

California Public Employees' Retirement System
Actuarial Office
P.O. Box 942701
Sacramento, CA 94229-2701
TTY: (916) 795-3240
(888) 225-7377 phone • (916) 795-2744 fax
www.calpers.ca.gov

October 2013

MISCELLANEOUS PLAN OF THE CITY OF STOCKTON (CalPERS ID: 6373973665)
Annual Valuation Report as of June 30, 2012

Dear Employer,

As an attachment to this letter, you will find a copy of the June 30, 2012 actuarial valuation report of your pension plan. Your 2012 actuarial valuation report contains important actuarial information about your pension plan at CalPERS. Your CalPERS staff actuary, whose signature appears in the Actuarial Certification Section on page 1, is available to discuss the report with you after October 31, 2013.

Future Contribution Rates

The exhibit below displays the Minimum Employer Contribution Rate for fiscal year 2014-15 and a projected contribution rate for 2015-16, before any cost sharing. The projected rate for 2015-16 is based on the most recent information available, including an estimate of the investment return for fiscal year 2012-13, namely 12 percent, and the impact of the new smoothing methods adopted by the CalPERS Board in April 2013 that will impact employer rates for the first time in fiscal year 2015-16. For a projection of employer rates beyond 2015-16, please refer to the "Analysis of Future Investment Return Scenarios" in the "Risk Analysis" section, which includes rate projections through 2019-20 under a variety of investment return scenarios. Please disregard any projections that we may have provided you in the past.

Fiscal Year	Employer Contribution Rate
2014-15	20.090%
2015-16	22.2% (projected)

Member contributions other than cost sharing, (whether paid by the employer or the employee) are in addition to the above rates. **The employer contribution rates in this report do not reflect any cost sharing arrangement you may have with your employees.**

The estimate for 2015-16 also assumes that there are no future contract amendments and no liability gains or losses (such as larger than expected pay increases, more retirements than expected, etc.). This is a very important assumption because these gains and losses do occur and can have a significant impact on your contribution rate. Even for the largest plans, such gains and losses often cause a change in the employer's contribution rate of one or two percent of payroll and may be even larger in some less common instances. These gains and losses cannot be predicted in advance so the projected employer contribution rates are just estimates. Your actual rate for 2015-16 will be provided in next year's report.

Changes since the Prior Year's Valuation

On January 1, 2013, the Public Employees' Pension Reform Act of 2013 (PEPRA) took effect. The impact of most of the PEPRA changes will first show up in the rates and the benefit provision listings of the June 30, 2013 valuation for the 2015-16 rates. For more information on PEPRA, please refer to the CalPERS website.

On April 17, 2013, the CalPERS Board of Administration approved a recommendation to change the CalPERS amortization and rate smoothing policies. Beginning with the June 30, 2013 valuations that set the 2015-16 rates, CalPERS will no longer use an actuarial value of assets and will employ an amortization and smoothing policy that will pay for all gains and losses over a fixed 30-year period with the increases or decreases in the rate spread directly over a 5-year period. The impact of this new actuarial methodology is reflected in the "Analysis of Future Investment Return Scenarios" subsection of the "Risk Analysis" section of your report.

A review of the preferred asset allocation mix for CalPERS investment portfolio will be performed in late 2013, which could influence future discount rates. In addition, CalPERS will review economic and demographic assumptions, including mortality rate improvements that are likely to increase employer contribution rates in future years. The "Analysis of Future Investment Return Scenarios" subsection does **not** reflect the impact of assumption changes that we expect will also impact future rates.

Besides the above noted changes, there may also be changes specific to your plan such as contract amendments and funding changes.

Further descriptions of general changes are included in the "Highlights and Executive Summary" section and in Appendix A, "Actuarial Methods and Assumptions." The effect of the changes on your rate is included in the "Reconciliation of Required Employer Contributions."

We understand that you might have a number of questions about these results. While we are very interested in discussing these results with your agency, in the interest of allowing us to give every public agency their results, we ask that you wait until after October 31 to contact us with actuarial questions. If you have other questions, you may call the Customer Contact Center at (888)-CalPERS or (**888-225-7377**).

Sincerely,

Alan Milligan

ALAN MILLIGAN
Chief Actuary

CalPERS

ACTUARIAL VALUATION

as of June 30, 2012

for the
MISCELLANEOUS PLAN
of the
CITY OF STOCKTON

(CalPERS ID: 6373973665)

REQUIRED CONTRIBUTIONS
FOR FISCAL YEAR
July 1, 2014 – June 30, 2015

TABLE OF CONTENTS

ACTUARIAL CERTIFICATION

To the best of our knowledge, this report is complete and accurate and contains sufficient information to disclose, fully and fairly, the funded condition of the MISCELLANEOUS PLAN OF THE CITY OF STOCKTON. This valuation is based on the member and financial data as of June 30, 2012 provided by the various CalPERS databases and the benefits under this plan with CalPERS as of the date this report was produced. It is our opinion that the valuation has been performed in accordance with generally accepted actuarial principles, in accordance with standards of practice prescribed by the Actuarial Standards Board, and that the assumptions and methods are internally consistent and reasonable for this plan, as prescribed by the CalPERS Board of Administration according to provisions set forth in the California Public Employees' Retirement Law.

The undersigned is an actuary for CalPERS, who is a member of the American Academy of Actuaries and the Society of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Kelly Sturm

KELLY STURM, ASA, MAAA
Senior Pension Actuary, CalPERS

HIGHLIGHTS AND EXECUTIVE SUMMARY

- **INTRODUCTION**
- **PURPOSE OF THE REPORT**
- **REQUIRED EMPLOYER CONTRIBUTION**
- **PLAN'S FUNDED STATUS**
- **COST**
- **CHANGES SINCE THE PRIOR YEAR'S VALUATION**
- **SUBSEQUENT EVENTS**

Introduction

This report presents the results of the June 30, 2012 actuarial valuation of the MISCELLANEOUS PLAN OF THE CITY OF STOCKTON of the California Public Employees' Retirement System (CalPERS). This actuarial valuation sets the fiscal year 2014-15 required employer contribution rates.

On January 1, 2013, the Public Employees' Pension Reform Act of 2013 (PEPRA) took effect. The impact of most of the PEPRA changes will first show up in the rates and the benefit provision listings of the June 30, 2013 valuation, which sets the 2015-16 contribution rates. For more information on PEPRA, please refer to the CalPERS website.

On April 17, 2013, the CalPERS Board of Administration approved a recommendation to change the CalPERS amortization and smoothing policies. Prior to this change, CalPERS employed an amortization and smoothing policy, which spread investment returns over a 15-year period while experience gains and losses were amortized over a rolling 30-year period. Effective with the June 30, 2013 valuations, CalPERS will no longer use an actuarial value of assets and will employ an amortization and smoothing policy that will spread rate increases or decreases over a 5-year period, and will amortize all experience gains and losses over a fixed 30-year period.

The new amortization and smoothing policy will be used for the first time in the June 30, 2013 actuarial valuations. These valuations will be performed in the fall of 2014 and will set employer contribution rates for the fiscal year 2015-16.

As stewards of the System, CalPERS must ensure that the pension fund is sustainable over multiple generations. Our strategic plan calls for us to take an integrated view of our assets and liabilities and to take steps designed to achieve a fully funded plan. A review of the preferred asset allocation mix for CalPERS investment portfolio will be performed in late 2013, which could influence future discount rates. In addition, CalPERS will review economic and demographic assumptions, including mortality rate improvements that are likely to increase employer contribution rates in future years.

Purpose of the Report

The actuarial valuation was prepared by the CalPERS Actuarial Office using data as of June 30, 2012. The purpose of the report is to:

- Set forth the actuarial assets and accrued liabilities of this plan as of June 30, 2012;
- Determine the required employer contribution rate for the fiscal year July 1, 2014 through June 30, 2015;
- Provide actuarial information as of June 30, 2012 to the CalPERS Board of Administration and other interested parties, and to;
- Provide pension information as of June 30, 2012 to be used in financial reports subject to Governmental Accounting Standards Board (GASB) Statement Number 27 for a Single Employer Defined Benefit Pension Plan.

California Actuarial Advisory Panel Recommendations

This report includes all the basic disclosure elements as described in the *Model Disclosure Elements for Actuarial Valuation Reports* recommended in 2011 by the California Actuarial Advisory Panel (CAAP), with the exception of including the original base amounts of the various components of the unfunded liability in the Schedule of Amortization Bases shown on page 19.

Additionally, this report includes the following "Enhanced Risk Disclosures" also recommended by the CAAP in the Model Disclosure Elements document:

- A "Deterministic Stress Test," projecting future results under different investment income scenarios
- A "Sensitivity Analysis," showing the impact on current valuation results using a 1% plus or minus change in the discount rate.

The use of this report for any other purposes may be inappropriate. In particular, this report does not contain information applicable to alternative benefit costs. The employer should contact their actuary before disseminating any portion of this report for any reason that is not explicitly described above.

Required Employer Contribution

		Fiscal Year 2013-14		Fiscal Year 2014-15
Actuarially Determined Employer Contributions				
1. Contribution in Projected Dollars				
a) Total Normal Cost	$	10,319,364	$	9,534,932
b) Employee Contribution[1]		4,107,560		3,840,527
c) Employer Normal Cost [(1a) – (1b)]		6,211,804		5,694,405
d) Unfunded Contribution		4,314,437		5,327,732
e) Required Employer Contribution [(1c) + (1d)]	$	10,526,241	$	11,022,137
Projected Annual Payroll for Contribution Year	$	58,679,425	$	54,864,671
2. Contribution as a Percentage of Payroll				
a) Total Normal Cost		17.586%		17.379%
b) Employee Contribution[1]		7.000%		7.000%
c) Employer Normal Cost [(2a) – (2b)]		10.586%		10.379%
d) Unfunded Rate		7.353%		9.711%
e) Required Employer Rate [(2c) + (2d)]		17.939%		20.090%
Minimum Employer Contribution Rate[2]		**17.939%**		**20.090%**
Annual Lump Sum Prepayment Option[3]	$	10,152,408	$	10,630,693

[1]This is the percentage specified in the Public Employees Retirement Law, net of any reduction from the use of a modified formula or other factors. Employee cost sharing is not shown in this report.

[2]The Minimum Employer Contribution Rate under PEPRA is the greater of the required employer rate or the employer normal cost.

[3]Payment must be received by CalPERS before the first payroll reported to CalPERS of the new fiscal year and after June 30. If there is contractual cost sharing or other change, this amount will change.

Plan's Funded Status

		June 30, 2011		June 30, 2012
1. Present Value of Projected Benefits	$	639,969,106	$	652,666,337
2. Entry Age Normal Accrued Liability		568,852,600		584,540,872
3. Actuarial Value of Assets (AVA)		513,963,229		517,244,333
4. Unfunded Liability (AVA Basis) [(2) – (3)]	$	54,889,371	$	67,296,539
5. Funded Ratio (AVA Basis) [(3) / (2)]		90.4%		88.5%
6. Market Value of Assets (MVA)	$	450,853,223	$	431,187,495
7. Unfunded Liability (MVA Basis) [(2) – (6)]	$	117,999,377	$	153,353,377
8. Funded Ratio (MVA Basis) [(6) / (2)]		79.3%		73.8%
Superfunded Status		No		No

Cost

Actuarial Cost Estimates in General

What will this pension plan cost? Unfortunately, there is no simple answer. There are two major reasons for the complexity of the answer. First, actuarial calculations, including the ones in this report, are based on a number of assumptions about the future. These assumptions can be divided into two categories.

- Demographic assumptions include the percentage of employees that will terminate, die, become disabled, and retire in each future year.
- Economic assumptions include future salary increases for each active employee, and the assumption with the greatest impact, future asset returns at CalPERS for each year into the future until the last dollar is paid to current members of your plan.

While CalPERS has set these assumptions to reflect our best estimate of the real future of your plan, it must be understood that these assumptions are very long-term predictors and will surely not be realized in any one year. For example, while the asset earnings at CalPERS have averaged more than the assumed return of 7.5 percent for the past twenty year period ending June 30, 2013, returns for each fiscal year ranged from negative -24 percent to +21.7 percent.

Second, the very nature of actuarial funding produces the answer to the question of plan cost as the sum of two separate pieces.

- The Normal Cost (i.e., the future annual premiums in the absence of surplus or unfunded liability) expressed as a percentage of total active payroll.
- The Past Service Cost or Accrued Liability (i.e., the current value of the benefit for all credited past service of current members) which is expressed as a lump sum dollar amount.

The cost is the sum of a percent of future pay and a lump sum dollar amount (the sum of an apple and an orange if you will). To communicate the total cost, either the Normal Cost (i.e., future percent of payroll) must be converted to a lump sum dollar amount (in which case the total cost is the present value of benefits), or the Past Service Cost (i.e., the lump sum) must be converted to a percent of payroll (in which case the total cost is expressed as the employer's rate, part of which is permanent and part temporary). Converting the Past Service Cost lump sum to a percent of payroll requires a specific amortization period, and the employer rate will vary depending on the amortization period chosen.

Changes since the Prior Year's Valuation

Benefits

The standard actuarial practice at CalPERS is to recognize mandated legislative benefit changes in the first annual valuation following the effective date of the legislation. Voluntary benefit changes by plan amendment are generally included in the first valuation that is prepared after the amendment becomes effective even if the valuation date is prior to the effective date of the amendment.

This valuation generally reflects plan changes by amendments effective before the date of the report. Please refer to Appendix B for a summary of the plan provisions used in this valuation. The effect of any mandated benefit changes or plan amendments on the unfunded liability is shown in the "(Gain)/Loss Analysis" and the effect on your employer contribution rate is shown in the "Reconciliation of Required Employer Contributions." It should be noted that no change in liability or rate is shown for any plan changes, which were already included in the prior year's valuation.

Public Employees' Pension Reform Act of 2013 (PEPRA)

On January 1, 2013, the Public Employees' Pension Reform Act of 2013 (PEPRA) took effect, requiring that a public employer's contribution to a defined benefit plan, in combination with employee contributions to that defined benefit plan, shall not be less than the normal cost rate. Beginning July 1, 2013, this means that some plans with surplus will be paying more than they otherwise would. For more information on PEPRA, please refer to the CalPERS website.

Subsequent Events

Actuarial Methods and Assumptions

On April 17, 2013, the CalPERS Board of Administration approved a recommendation to change the CalPERS amortization and smoothing policies. Beginning with the June 30, 2013 valuations that set the 2015-16 rates, CalPERS will no longer use an actuarial value of assets and will employ an amortization and rate smoothing policy that will pay for all gains and losses over a fixed 30-year period with the increases or decreases in the rate spread directly over a 5-year period. The impact of this new actuarial methodology is reflected in the "Expected Rate Increases" subsection of the "Risk analysis" section of your report.

Not reflected in the "Expected Rate Increases" subsection of the "Risk analysis" section is the impact of assumption changes that we expect will also, impact future rates. A review of the preferred asset allocation mix for CalPERS investment portfolio will be performed in late 2013, which could influence future discount rates. In addition, CalPERS will review economic and demographic assumptions, including mortality rate improvements that are likely to increase employer contribution rates in future years.

Bankruptcy

On June 28, 2012, the City of Stockton filed a petition for Chapter 9 bankruptcy protection with the United States Bankruptcy Court. That petition was approved by the Judge on April 1, 2013. The bankruptcy did not have an impact on the valuation or the determination of the required contributions for the 2014-15 fiscal year.

ASSETS

- **RECONCILIATION OF THE MARKET VALUE OF ASSETS**
- **DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS**
- **ASSET ALLOCATION**
- **CALPERS HISTORY OF INVESTMENT RETURNS**

Reconciliation of the Market Value of Assets

1.	Market Value of Assets as of 6/30/11 Including Receivables	$	450,853,223
2.	Receivables for Service Buybacks as of 6/30/11		367,537
3.	Market Value of Assets as of 6/30/11		450,485,686
4.	Employer Contributions		8,203,945
5.	Employee Contributions		3,554,463
6.	Benefit Payments to Retirees and Beneficiaries		(30,219,557)
7.	Refunds		(188,037)
8.	Lump Sum Payments		0
9.	Transfers and Miscellaneous Adjustments		(565,132)
10.	Investment Return		(987,180)
11.	Market Value of Assets as of 6/30/12	$	430,284,188
12.	Receivables for Service Buybacks as of 6/30/12		903,307
13.	Market Value of Assets as of 6/30/12 Including Receivables	$	431,187,495

Development of the Actuarial Value of Assets

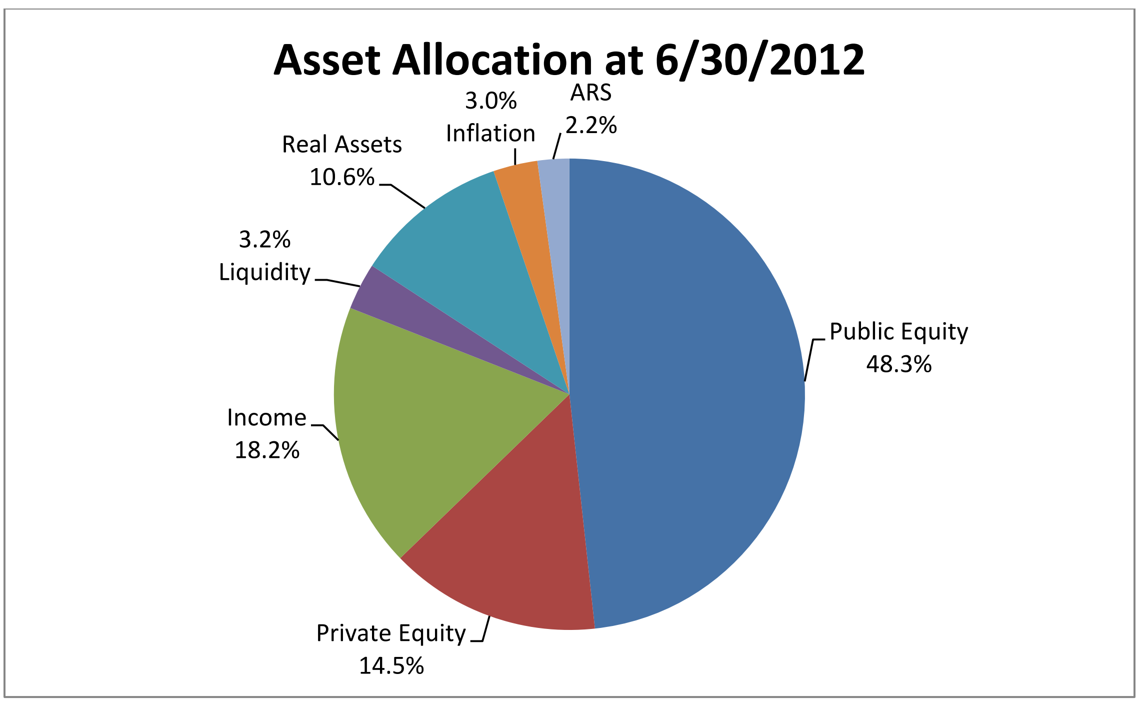
1.	Actuarial Value of Assets as of 6/30/11 Used For Rate Setting Purposes	$	513,963,229
2.	Receivables for Service Buybacks as of 6/30/11		367,537
3.	Actuarial Value of Assets as of 6/30/11		513,595,692
4.	Employer Contributions		8,203,945
5.	Employee Contributions		3,554,463
6.	Benefit Payments to Retirees and Beneficiaries		(30,219,557)
7.	Refunds		(188,037)
8.	Lump Sum Payments		0
9.	Transfers and Miscellaneous Adjustments		(565,132)
10.	Expected Investment Income at 7.5%		37,812,166
11.	Expected Actuarial Value of Assets	$	532,193,540
12.	Market Value of Assets as of 6/30/12	$	430,284,188
13.	Preliminary Actuarial Value of Assets [(11) + ((12) – (11)) / 15]		525,399,583
14.	Maximum Actuarial Value of Assets (120% of (12))		516,341,026
15.	Minimum Actuarial Value of Assets (80% of (12))		344,227,350
16.	Actuarial Value of Assets {Lesser of [(14), Greater of ((13), (15))]}		516,341,026
17.	Actuarial Value to Market Value Ratio		120.0%
18.	Receivables for Service Buybacks as of 6/30/12		903,307
19.	Actuarial Value of Assets as of 6/30/12 Used for Rate Setting Purposes	$	517,244,333

Asset Allocation

CalPERS adheres to an Asset Allocation Strategy which establishes asset class allocation policy targets and ranges, and manages those asset class allocations within their policy ranges. CalPERS recognizes that over 90 percent of the variation in investment returns of a well-diversified pool of assets can typically be attributed to asset allocation decisions. In December 2010 the Board approved the policy asset class targets and ranges listed below. These policy asset allocation targets and ranges are expressed as a percentage of total assets and were expected to be implemented over a period of one to two years beginning July 1, 2011 and reviewed again in December 2013.

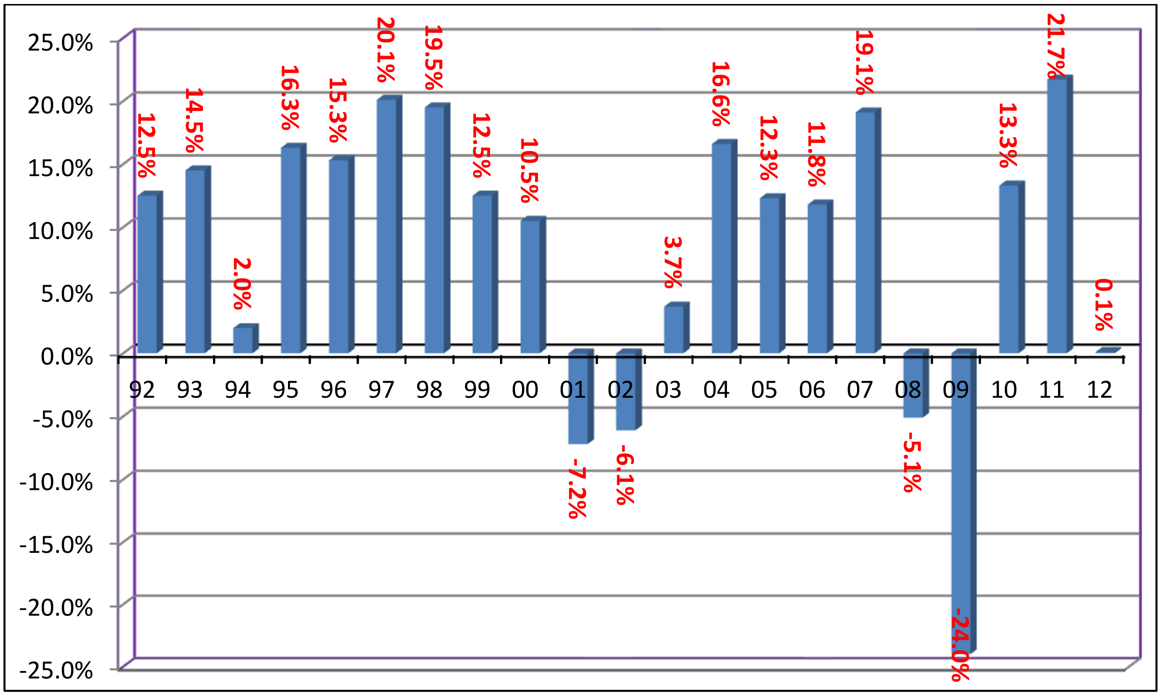
The asset allocation and market value of assets shown below reflect the values of the Public Employees Retirement Fund (PERF) in its entirety as of June 30, 2012. The assets for CITY OF STOCKTON MISCELLANEOUS PLAN are part of the Public Employees Retirement Fund (PERF) and are invested accordingly.

(A) Asset Class	(B) Market Value ($ Billion)	(C) Policy Target Allocation	(D) Policy Target Range
1) Public Equity	113.0	50.0%	+/- 7%
2) Private Equity	33.9	14.0%	+/- 4%
3) Fixed Income	42.6	17.0%	+/- 5%
4) Cash Equivalents	7.5	4.0%	+/- 5%
5) Real Assets	24.8	11.0%	+/- 3%
6) Inflation Assets	7.0	4.0%	+/- 3%
7) Absolute Return Strategy (ARS)	5.1	0.0%	N/A
Total Fund	**$233.9**	**100.0%**	**N/A**



CalPERS History of Investment Returns

The following is a chart with historical annual returns of the Public Employees Retirement Fund for each fiscal year ending on June 30. Beginning in 2002, the figures are reported as gross of fees.



LIABILITIES AND RATES

- **DEVELOPMENT OF ACCRUED AND UNFUNDED LIABILITIES**
- **(GAIN) / LOSS ANALYSIS 06/30/11 - 06/30/12**
- **SCHEDULE OF AMORTIZATION BASES**
- **RECONCILIATION OF REQUIRED EMPLOYER CONTRIBUTIONS**
- **EMPLOYER CONTRIBUTION RATE HISTORY**
- **FUNDING HISTORY**

Development of Accrued and Unfunded Liabilities

1.	Present Value of Projected Benefits		
	a) Active Members	$	221,184,776
	b) Transferred Members		22,083,865
	c) Terminated Members		9,760,119
	d) Members and Beneficiaries Receiving Payments		399,637,577
	e) Total	$	652,666,337
2.	Present Value of Future Employer Normal Costs	$	39,662,466
3.	Present Value of Future Employee Contributions	$	28,462,999
4.	Entry Age Normal Accrued Liability		
	a) Active Members [(1a) - (2) - (3)]	$	153,059,311
	b) Transferred Members (1b)		22,083,865
	c) Terminated Members (1c)		9,760,119
	d) Members and Beneficiaries Receiving Payments (1d)		399,637,577
	e) Total	$	584,540,872
5.	Actuarial Value of Assets (AVA)	$	517,244,333
6.	Unfunded Accrued Liability (AVA Basis) [(4e) – (5)]	$	67,296,539
7.	Funded Ratio (AVA Basis) [(5) / (4e)]		88.5%
8.	Market Value of Assets (MVA)	$	431,187,495
9.	Unfunded Liability (MVA Basis) [(4e) - (8)]	$	153,353,377
10.	Funded Ratio (MVA Basis) [(8) / (4e)]		73.8%

(Gain) /Loss Analysis 6/30/11 – 6/30/12

To calculate the cost requirements of the plan, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is compared to the expected experience based on the actuarial assumptions. This results in actuarial gains or losses, as shown below.

A	**Total (Gain)/Loss for the Year**		
1.	Unfunded Accrued Liability (UAL) as of 6/30/11	$	54,889,371
2.	Expected Payment on the UAL during 2011/2012		3,515,013
3.	Interest through 6/30/12 [.075 x (A1) - ((1.075)^{½} - 1) x (A2)]		3,987,273
4.	Expected UAL before all other changes [(A1) - (A2) + (A3)]		55,361,631
5.	Change due to plan changes		0
6.	Change due to assumption change		0
7.	Expected UAL after all other changes [(A4) + (A5) + (A6)]		55,361,631
8.	Actual UAL as of 6/30/12		67,296,539
9.	Total (Gain)/Loss for 2011/2012 [(A8) - (A7)]	$	11,934,908
B	**Contribution (Gain)/Loss for the Year**		
1.	Expected Contribution (Employer and Employee)	$	13,242,003
2.	Interest on Expected Contributions		487,598
3.	Actual Contributions		11,758,408
4.	Interest on Actual Contributions		432,969
5.	Expected Contributions with Interest [(B1) + (B2)]		13,729,601
6.	Actual Contributions with Interest [(B3) + (B4)]		12,191,377
7.	Contribution (Gain)/Loss [(B5) - (B6)]	$	1,538,224
C	**Asset (Gain)/Loss for the Year**		
1.	Actuarial Value of Assets as of 6/30/11 Including Receivables	$	513,963,229
2.	Receivables as of 6/30/11		367,537
3.	Actuarial Value of Assets as of 6/30/11		513,595,692
4.	Contributions Received		11,758,408
5.	Benefits and Refunds Paid		(30,407,594)
6.	Transfers and miscellaneous adjustments		(565,132)
7.	Expected Int. [.075 x (C3) + ((1.075)^{½} - 1) x ((C4) + (C5) + (C6))]		37,812,166
8.	Expected Assets as of 6/30/12 [(C3) + (C4) + (C5) + (C6) + (C7)]		532,193,540
9.	Receivables as of 6/30/12		903,307
10.	Expected Assets Including Receivables		533,096,847
11.	Actual Actuarial Value of Assets as of 6/30/12		517,244,333
12.	Asset (Gain)/Loss [(C10) - (C11)]	$	15,852,514
D	**Liability (Gain)/Loss for the Year**		
1.	Total (Gain)/Loss (A9)	$	11,934,908
2.	Contribution (Gain)/Loss (B7)		1,538,224
3.	Asset (Gain)/Loss (C12)		15,852,514
4.	Liability (Gain)/Loss [(D1) - (D2) - (D3)]	$	(5,455,830)

Development of the (Gain)/Loss Balance as of 6/30/12

1.	(Gain)/Loss Balance as of 6/30/11	$	18,819,847
2.	Payment Made on the Balance during 2011/2012		1,130,150
3.	Interest through 6/30/12 [.075 x (1) - ((1.075)$^{1/2}$ - 1) x (2)]		1,369,874
4.	Scheduled (Gain)/Loss Balance as of 6/30/12 [(1) - (2) + (3)]	$	19,059,571
5.	(Gain)/Loss for Fiscal Year ending 6/30/12 [(A9) above]		11,934,908
6.	Final (Gain)/Loss Balance as of 6/30/12 [(4) + (5)]	$	30,994,479

Schedule of Amortization Bases

There is a two-year lag between the Valuation Date and the Contribution Fiscal Year.

- The assets, liabilities and funded status of the plan are measured as of the valuation date; June 30, 2012.
- The employer contribution rate determined by the valuation is for the fiscal year beginning two years after the valuation date; fiscal year 2014-15.

This two-year lag is necessary due to the amount of time needed to extract and test the membership and financial data, and due to the need to provide public agencies with their employer contribution rates well in advance of the start of the fiscal year.

The Unfunded Liability is used to determine the employer contribution and therefore must be rolled forward two years from the valuation date to the first day of the fiscal year for which the contribution is being determined. The Unfunded Liability is rolled forward each year by subtracting the expected Payment on the Unfunded Liability for the fiscal year and adjusting for interest. The Expected Payment on the Unfunded Liability for a fiscal year is equal to the Expected Employer Contribution for the fiscal year minus the Expected Normal Cost for the year. The Employer Contribution Rate for the first fiscal year is determined by the actuarial valuation two years ago and the rate for the second year is from the actuarial valuation one year ago. The Normal Cost Rate for each of the two fiscal years is assumed to be the same as the rate determined by the current valuation. All expected dollar amounts are determined by multiplying the rate by the expected payroll for the applicable fiscal year, based on payroll as of the valuation date.

							Amounts for Fiscal 2014-15		
Reason for Base	**Date Established**	**Amorti-zation Period**	**Balance 6/30/12**	**Expected Payment 2012-13**	**Balance 6/30/13**	**Expected Payment 2013-14**	**Balance 6/30/14**	**Scheduled Payment for 2014-15**	**Payment as Percent-age of Payroll**
FRESH START	06/30/06	11	$13,571,672	$1,385,492	$13,153,039	$1,422,229	$12,664,919	$1,464,896	2.670%
ASSUMPTION CHANGE	06/30/09	17	$12,568,357	$983,412	$12,491,361	$1,009,861	$12,381,167	$1,040,157	1.896%
SPECIAL (GAIN)/LOSS	06/30/09	27	$16,229,684	$993,626	$16,416,697	$1,020,794	$16,589,568	$1,051,417	1.916%
SPECIAL (GAIN)/LOSS	06/30/10	28	$(7,362,580)	$(443,158)	$(7,455,298)	$(455,325)	$(7,542,354)	$(468,985)	(0.855%)
GOLDEN HANDSHAKE	06/30/11	19	$4,335,945	$0	$4,661,141	$351,941	$4,645,826	$362,500	0.661%
ASSUMPTION CHANGE	06/30/11	19	$688,979	$(48,994)	$791,450	$19,920	$830,155	$64,774	0.118%
SPECIAL (GAIN)/LOSS	06/30/11	29	$(4,657,861)	$0	$(5,007,201)	$(300,685)	$(5,070,984)	$(309,706)	(0.564%)
PAYMENT (GAIN)/LOSS	06/30/12	30	$927,865	$(655,144)	$1,676,722	$(200,720)	$2,010,587	$120,737	0.220%
(GAIN)/LOSS	06/30/12	30	$30,994,478	$1,147,289	$32,129,529	$1,158,945	$33,337,624	$2,001,942	3.649%
TOTAL			**$67,296,539**	**$3,362,523**	**$68,857,440**	**$4,026,960**	**$69,846,508**	**$5,327,732**	**9.711%**

The special (gain)/loss bases were established using the temporary modification recognized in the 2009, 2010 and 2011 annual valuations. Unlike the gain/loss occurring in previous and subsequent years, the gain/loss recognized in the 2009, 2010, and 2011 annual valuations will be amortized over fixed and declining 30-year periods so that these annual gain/losses will be fully paid off in 30 years. The gain/loss recognized in 2012 and later valuations will be combined with the gain/loss from 2008 and earlier valuations.

Reconciliation of Required Employer Contributions

	Percentage of Projected Payroll	Estimated $ Based on Projected Payroll
1. Contribution for 7/1/13 – 6/30/14	17.939%	$ 10,526,241
2. Effect of changes since the prior year annual valuation		
a) Effect of unexpected changes in demographics and financial results	2.151%	1,180,225
b) Effect of plan changes	0.000%	0
c) Effect of changes in Assumptions	0.000%	0
d) Effect of change in payroll	-	(684,329)
e) Effect of elimination of amortization base	0.000%	0
f) Effect of changes due to Fresh Start	0.000%	0
g) Net effect of the changes above [Sum of (a) through (f)]	2.151%	495,896
3. Contribution for 7/1/14 – 6/30/15 [(1)+(2g)]	20.090%	11,022,137

The contribution actually paid (item 1) may be different if a prepayment of unfunded actuarial liability is made or a plan change became effective after the prior year's actuarial valuation was performed.

Employer Contribution Rate History

The table below provides a recent history of the employer contribution rates for your plan, as determined by the annual actuarial valuation. It does not account for prepayments or benefit changes made in the middle of the year.

Required By Valuation

Fiscal Year	Employer Normal Cost	Unfunded Rate	Total Employer Contribution Rate
2010 - 2011	10.844%	3.243%	14.087%
2011 - 2012	10.546%	6.395%	16.941%
2012 - 2013	10.268%	6.613%	16.881%
2013 - 2014	10.586%	7.353%	17.939%
2014 - 2015	10.379%	9.711%	20.090%

Funding History

The Funding History below shows the recent history of the actuarial accrued liability, the market value of assets, the actuarial value of assets, funded ratios and the annual covered payroll. The Actuarial Value of Assets is used to establish funding requirements and the funded ratio on this basis represents the progress toward fully funding future benefits for current plan participants. The funded ratio based on the Market Value of Assets is an indicator of the short-term solvency of the plan.

Valuation Date	Accrued Liability	Actuarial Value of Assets (AVA)	Market Value of Assets (MVA)	Funded Ratio AVA	Funded Ratio MVA	Annual Covered Payroll
06/30/08	$ 491,467,308	$ 460,950,390	$ 467,269,585	93.8%	95.1%	$ 66,743,768
06/30/09	535,150,533	478,673,431	345,912,268	89.4%	64.6%	62,265,227
06/30/10	548,129,809	495,325,729	383,364,117	90.4%	69.9%	56,256,198
06/30/11	568,852,600	513,963,229	450,853,223	90.4%	79.3%	53,699,986
06/30/12	584,540,872	517,244,333	431,187,495	88.5%	73.8%	50,208,946

RISK ANALYSIS

- **VOLATILITY RATIOS**
- **PROJECTED RATES**
- **ANALYSIS OF FUTURE INVESTMENT RETURN SCENARIOS**
- **ANALYSIS OF DISCOUNT RATE SENSITIVITY**
- **HYPOTHETICAL TERMINATION LIABILITY**

Volatility Ratios

The actuarial calculations supplied in this communication are based on a number of assumptions about very long-term demographic and economic behavior. Unless these assumptions (terminations, deaths, disabilities, retirements, salary growth, and investment return) are exactly realized each year, there will be differences on a year-to-year basis. The year-to-year differences between actual experience and the assumptions are called actuarial gains and losses and serve to lower or raise the employer's rates from one year to the next. Therefore, the rates will inevitably fluctuate, especially due to the ups and downs of investment returns.

Asset Volatility Ratio (AVR)

Plans that have higher asset to payroll ratios produce more volatile employer rates due to investment return. For example, a plan with an asset to payroll ratio of 8 may experience twice the contribution volatility due to investment return volatility, than a plan with an asset to payroll ratio of 4. Below we have shown your asset volatility ratio, a measure of the plan's current rate volatility. It should be noted that this ratio is a measure of the current situation. It increases over time but generally tends to stabilize as the plan matures.

Liability Volatility Ratio

Plans that have higher liability to payroll ratios produce more volatile employer rates due to investment return and changes in liability. For example, a plan with a liability to payroll ratio of 8 is expected to have twice the contribution volatility of a plan with a liability to payroll ratio of 4. The liability volatility ratio is also included in the table below. It should be noted that this ratio indicates a longer-term potential for contribution volatility and the asset volatility ratio, described above, will tend to move closer to this ratio as the plan matures.

Rate Volatility		**As of June 30, 2012**
1. Market Value of Assets without Receivables	$	430,284,188
2. Payroll		50,208,946
3. Asset Volatility Ratio (AVR = 1. / 2.)		8.6
4. Accrued Liability	$	584,540,872
5. Liability Volatility Ratio (4. / 2.)		11.6

Projected Rates

On April 17, 2013, the CalPERS Board of Administration approved a recommendation to change the CalPERS amortization and smoothing policies. Beginning with the June 30, 2013 valuations that will set the 2015-16 rates, CalPERS will employ an amortization and rate smoothing policy that will pay for all gains and losses over a fixed 30-year period with the increases or decreases in the rate spread directly over a 5-year period. The table below shows projected employer contribution rates (before cost sharing) for the next five Fiscal Years, ***assuming CalPERS earns 12% for fiscal year 2012-13 and 7.50 percent every fiscal year thereafter***, and assuming that all other actuarial assumptions will be realized and that no further changes to assumptions, contributions, benefits, or funding will occur between now and the beginning of the fiscal year 2015-16. ***Consequently, these projections do not take into account potential rate increases from likely future assumption changes.*** Nor do they take into account the positive impact PEPRA is expected to gradually have on the normal cost.

	New Rate	**Projected Future Employer Contribution Rates**				
	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**2019-20**
Contribution Rates:	20.090%	22.2%	24.3%	26.4%	28.6%	30.7%

Analysis of Future Investment Return Scenarios

In July 2013, the investment return for fiscal year 2012-13 was announced to be 12.5 percent. Note that this return is before administrative expenses and also does not reflect final investment return information for real estate and private equities. The final return information for these two asset classes is expected to be available later in October. For purposes of projecting future employer rates, we are assuming a 12 percent investment return for fiscal year 2012-13.

The investment return realized during a fiscal year first affects the contribution rate for the fiscal year 2 years later. Specifically, the investment return for 2012-13 will first be reflected in the June 30, 2013 actuarial valuation that will be used to set the 2015-16 employer contribution rates, the 2013-14 investment return will first be reflected in the June 30, 2014 actuarial valuation that will be used to set the 2016-17 employer contribution rates and so forth.

Based on a 12 percent investment return for fiscal year 2012-13 **and the April 17, 2013 CalPERS Board-approved amortization and rate smoothing method change,** and assuming that all other actuarial assumptions will be realized, and that no further changes to assumptions, contributions, benefits, or funding will occur between now and the beginning of the fiscal year 2015-16, the effect on the 2015-16 Employer Rate is as follows: (Note that this estimated rate does not reflect additional assumption changes as discussed in the "Subsequent Events" section.)

Estimated 2015-16 Employer Rate	**Estimated Increase in Employer Rate between 2014-15 and 2015-16**
22.2%	2.1%

As part of this report, a sensitivity analysis was performed to determine the effects of various investment returns during fiscal years 2013-14, 2014-15 and 2015-16 on the 2016-17, 2017-18 and 2018-19 employer rates. Once again, the projected rate increases assume that all other actuarial assumptions will be realized and that no further changes to assumptions, contributions, benefits, or funding will occur.

Five different investment return scenarios were selected.

- The first scenario is what one would expect if the markets were to give us a 5th percentile return from July 1, 2013 through June 30, 2016. The 5th percentile return corresponds to a -4.1 percent return for each of the 2013-14, 2014-15 and 2015-16 fiscal years.
- The second scenario is what one would expect if the markets were to give us a 25th percentile return from July 1, 2013 through June 30, 2016. The 25th percentile return corresponds to a 2.6 percent return for each of the 2013-14, 2014-15 and 2015-16 fiscal years.
- The third scenario assumed the return for 2013-14, 2014-15, 2015-16 would be our assumed 7.5 percent investment return which represents about a 49th percentile event.
- The fourth scenario is what one would expect if the markets were to give us a 75th percentile return from July 1, 2013 through June 30, 2016. The 75th percentile return corresponds to a 11.9 percent return for each of the 2013-14, 2014-15 and 2015-16 fiscal years.
- Finally, the last scenario is what one would expect if the markets were to give us a 95th percentile return from July 1, 2013 through June 30, 2016. The 95th percentile return corresponds to a 18.5 percent return for each of the 2013-14, 2014-15 and 2015-16 fiscal years.

The table below shows the estimated projected contribution rates and the estimated increases for your plan under the five different scenarios.

2013-16 Investment Return Scenario	Estimated Employer Rate			Estimated Change in Employer Rate between 2015-16 and 2018-19
	2016-17	2017-18	2018-19	
-4.1% (5th percentile)	25.8%	30.7%	36.7%	14.5%
2.6% (25th percentile)	24.9%	28.3%	32.2%	10.0%
7.5%	24.3%	26.4%	28.6%	6.4%
11.9%(75th percentile)	23.8%	24.7%	25.1%	2.9%
18.5%(95th percentile)	22.9%	22.1%	19.6%	-2.6%

Analysis of Discount Rate Sensitivity

The following analysis looks at the 2014-15 employer contribution rates under two different discount rate scenarios. Shown below are the employer contribution rates assuming discount rates that are 1 percent lower and 1 percent higher than the current valuation discount rate. This analysis gives an indication of the potential required employer contribution rates if the PERF were to realize investment returns of 6.50 percent or 8.50 percent over the long-term.

This type of analysis gives the reader a sense of the long-term risk to the employer contribution rates.

2014-15 Employer Contribution Rate			
As of June 30, 2012	6.50% Discount Rate (-1%)	7.50% Discount Rate (assumed rate)	8.50% Discount Rate (+1%)
Employer Normal Cost	14.717%	10.379%	7.086%
Unfunded Rate Payment	20.180%	9.711%	(0.744%)
Total	34.897%	20.090%	6.342%

Hypothetical Termination Liability

Below is an estimate of the financial position of your plan if you had terminated your contract with CalPERS as of June 30, 2012 using the discount rates shown below. Your plan liability on a termination basis is calculated differently compared to the plan's ongoing funding liability. In December 2012, the CalPERS Board adopted a more conservative investment policy and asset allocation strategy for the Terminated Agency Pool. Since the Terminated Agency Pool has limited funding sources, expected benefit payments are secured by risk-free assets. With this change, CalPERS increased benefit security for members while limiting its funding risk. This asset allocation has a lower expected rate of return than the PERF. Consequently, the lower discount rate for the Terminated Agency pool results in higher liabilities for terminated plans.

In order to terminate your plan, you must first contact our Retirement Services Contract Unit to initiate a Resolution of Intent to Terminate. The completed Resolution will allow your plan actuary to give you a preliminary termination valuation with a more up-to-date estimate of your plan liabilities. CalPERS advises you to consult with your plan actuary before beginning this process.

Valuation Date	Hypothetical Termination Liability[1]	Market Value of Assets (MVA)	Unfunded Termination Liability	Termination Funded Ratio	Termination Liability Discount Rate[2]
06/30/11	$ 808,560,358	$ 450,853,223	$ 357,707,135	55.8%	4.82%
06/30/12	1,007,118,560	431,187,495	575,931,065	42.8%	2.98%

[1] The hypothetical liabilities calculated above include a 7 percent mortality contingency load in accordance with Board policy. Other actuarial assumptions, such as wage and inflation assumptions, can be found in appendix A.

[2] The discount rate assumption used for termination valuations is a weighted average of the 10 and 30-year US Treasury yields in effect on the valuation date that equal the duration of the pension liabilities. For purposes of this hypothetical termination liability estimate, the discount rate used, 2.98 percent, is the yield on the 30-year US Treasury Separate Trading of Registered Interest and Principal of Securities (STRIPS) as of June 30, 2012. In last year's report the May 2012 rate of 2.87 percent was inadvertently shown rather than the June rate of 2.98 percent. Please note, as of June 30, 2013 the 30-year STRIPS yield was 3.72 percent.

GASB STATEMENT NO. 27

MISCELLANEOUS PLAN of the CITY OF STOCKTON

Information for Compliance with GASB Statement No. 27

Disclosure under GASB 27 follows. However, note that effective for financial statements for fiscal years beginning after June 15, 2014, GASB 68 replaces GASB 27. GASB 68 will require additional reporting. CalPERS is planning to provide GASB 68 disclosure information upon request for an additional fee. We urge you to start discussions with your auditors on how to implement GASB 68.

Under GASB 27, an employer reports an annual pension cost (APC) equal to the annual required contribution (ARC) plus an adjustment for the cumulative difference between the APC and the employer's actual plan contributions for the year. The cumulative difference is called the net pension obligation (NPO). The ARC for the period July 1, 2014 to June 30, 2015 has been determined by an actuarial valuation of the plan as of June 30, 2012. The unadjusted GASB compliant contribution rate for the indicated period is 20.090 percent of payroll. In order to calculate the dollar value of the ARC for inclusion in financial statements prepared as of June 30, 2015, this contribution rate, less any employee cost sharing, as modified by any amendments for the year, would be multiplied by the payroll of covered employees that was actually paid during the period July 1, 2014 to June 30, 2015. The employer and the employer's auditor are responsible for determining the NPO and the APC.

A summary of principal assumptions and methods used to determine the ARC is shown below.

	Retirement Program
Valuation Date	June 30, 2012
Actuarial Cost Method	Entry Age Normal Cost Method
Amortization Method	Level Percent of Payroll
Average Remaining Period	22 Years as of the Valuation Date
Asset Valuation Method	15 Year Smoothed Market
Actuarial Assumptions	
Discount Rate	7.50% (net of administrative expenses)
Projected Salary Increases	3.30% to 14.20% depending on Age, Service, and type of employment
Inflation	2.75%
Payroll Growth	3.00%
Individual Salary Growth	A merit scale varying by duration of employment coupled with an assumed annual inflation growth of 2.75% and an annual production growth of 0.25%.

Initial unfunded liabilities are amortized over a closed period that depends on the plan's date of entry into CalPERS. Subsequent plan amendments are amortized as a level percentage of pay over a closed 20-year period. Gains and losses that occur in the operation of the plan are amortized over a 30-year rolling period, which results in an amortization of about 6 percent of unamortized gains and losses each year. If the plan's accrued liability exceeds the actuarial value of plan assets, then the amortization payment on the total unfunded liability may not be lower than the payment calculated over a 30-year amortization period. More detailed information on assumptions and methods is provided in Appendix A of this report. Appendix B contains a description of benefits included in the valuation.

The Schedule of Funding Progress below shows the recent history of the actuarial accrued liability, actuarial value of assets, their relationship and the relationship of the unfunded actuarial accrued liability to payroll.

Valuation Date	Accrued Liability (a)	Actuarial Value of Assets (AVA) (b)	Unfunded Liability (UL) (a)-(b)	Funded Ratios (AVA) (b)/(a)	Funded Ratios Market Value	Annual Covered Payroll (c)	UL As a % of Payroll [(a)-(b)]/(c)
06/30/08	$ 491,467,308	$ 460,950,390	$ 30,516,918	93.8%	95.1%	$ 66,743,768	45.7%
06/30/09	535,150,533	478,673,431	56,477,102	89.4%	64.6%	62,265,227	90.7%
06/30/10	548,129,809	495,325,729	52,804,080	90.4%	69.9%	56,256,198	93.9%
06/30/11	568,852,600	513,963,229	54,889,371	90.4%	79.3%	53,699,986	102.2%
06/30/12	584,540,872	517,244,333	67,296,539	88.5%	73.8%	50,208,946	134.0%

PLAN’S MAJOR BENEFIT PROVISIONS

Plan's Major Benefit Options

Shown below is a summary of the major optional benefits for which your agency has contracted. A description of principal standard and optional plan provisions is in the following section of this Appendix.

	Contract Package				
Benefit Provision	Receiving	Active	Active	Receiving	
Benefit Formula		2.0% @ 55	2.0% @ 55		
Social Security Coverage		Yes	No		
Full/Modified		Modified	Full		
Final Average Compensation Period		12 mos.	12 mos.		
Sick Leave Credit		Yes	Yes		
Non-Industrial Disability		Standard	Standard		
Industrial Disability		No	No		
Pre-Retirement Death Benefits					
Optional Settlement 2W		No	No		
1959 Survivor Benefit Level		No	Level 4		
Special		No	No		
Alternate (firefighters)		No	No		
Post-Retirement Death Benefits					
Lump Sum	$500	$500	$500	$500	
Survivor Allowance (PRSA)	Yes	Yes	Yes	No	
COLA	5%	5%	5%	2%	

APPENDICES

APPENDIX A

ACTUARIAL METHODS AND ASSUMPTIONS

- **ACTUARIAL DATA**
- **ACTUARIAL METHODS**
- **ACTUARIAL ASSUMPTIONS**
- **MISCELLANEOUS**

Actuarial Data

As stated in the Actuarial Certification, the data, which serves as the basis of this valuation, has been obtained from the various CalPERS databases. We have reviewed the valuation data and believe that it is reasonable and appropriate in aggregate. We are unaware of any potential data issues that would have a material effect on the results of this valuation, except that data does not always contain the latest salary information for former members now in reciprocal systems and does not recognize the potential for unusually large salary deviation in certain cases such as elected officials. Therefore, salary information in these cases may not be accurate. These situations are relatively infrequent, however, and when they do occur, they generally do not have a material impact on the employer contribution rates.

Actuarial Methods

Funding Method

The actuarial funding method used for the Retirement Program is the Entry Age Normal Cost Method. Under this method, projected benefits are determined for all members and the associated liabilities are spread in a manner that produces level annual cost as a percent of pay in each year from the age of hire (entry age) to the assumed retirement age. The cost allocated to the current fiscal year is called the normal cost.

The actuarial accrued liability for active members is then calculated as the portion of the total cost of the plan allocated to prior years. The actuarial accrued liability for members currently receiving benefits, for active members beyond the assumed retirement age, and for members entitled to deferred benefits, is equal to the present value of the benefits expected to be paid. No normal costs are applicable for these participants.

The excess of the total actuarial accrued liability over the actuarial value of plan assets is called the unfunded actuarial accrued liability. Funding requirements are determined by adding the normal cost and an amortization of the unfunded liability as a level percentage of assumed future payrolls. All changes in liability due to plan amendments, changes in actuarial assumptions, or changes in actuarial methodology are amortized separately over a 20-year period. All new gains or losses are tracked and amortized over a rolling 30-year period. If a plan's accrued liability exceeds the actuarial value of assets, the annual contribution with respect to the total unfunded liability may not be less than the amount produced by a 30-year amortization of the unfunded liability.

Additional contributions will be required for any plan or pool if their cash flows hamper adequate funding progress by preventing the expected funded status on a market value of assets basis to either:

- Increase by at least 15% by June 30, 2043; or
- Reach a level of 75% funded by June 30, 2043

The necessary additional contribution will be obtained by changing the amortization period of the gains and losses, except for those occurring in the fiscal years 2008-2009, 2009-2010, and 2010-2011 to a period, which will result in the satisfaction of the above criteria. CalPERS actuaries will reassess the criteria above when performing each future valuation to determine whether or not additional contributions are necessary.

An exception to the funding rules above is used whenever the application of such rules results in inconsistencies. In these cases, a "fresh start" approach is used. This simply means that the current unfunded actuarial liability is projected and amortized over a set number of years. As mentioned above, if the annual contribution on the total unfunded liability was less than the amount produced by a 30-year amortization of the unfunded liability, the plan actuary would implement a 30-year fresh start. However, in the case of a 30-year fresh start, just the unfunded liability not already in the (gain)/loss base (which is already amortized over 30 years), will go into the new fresh start base. In addition, a fresh start is needed in the following situations:

1) When a positive payment would be required on a negative unfunded actuarial liability (or conversely a negative payment on a positive unfunded actuarial liability); or

2) When there are excess assets, rather than an unfunded liability. In this situation, a 30-year fresh start is used, unless a longer fresh start is needed to avoid a negative total rate.

It should be noted that the actuary may choose to use a fresh start under other circumstances. In all cases, the fresh start period is set by the actuary at what is deemed appropriate; however, the period will not be less than five years, nor greater than 30 years.

Asset Valuation Method

In order to dampen the effect of short-term market value fluctuations on employer contribution rates, the following asset smoothing technique is used. First, an Expected Value of Assets is computed by bringing forward the prior year's Actuarial Value of Assets and the contributions received and benefits paid during the year at the assumed actuarial rate of return. The Actuarial Value of Assets is then computed as the Expected Value of Assets plus one-fifteenth of the difference between the actual Market Value of Assets and the Expected Value of Assets, as of the valuation date. However, in no case will the Actuarial Value of Assets be less than 80% or greater than 120% of the actual Market Value of Assets.

In June 2009, the CalPERS Board adopted changes to the asset smoothing method in order to phase in over a three-year period the impact of the negative -24 percent investment loss experienced by CalPERS in fiscal year 2008-2009. The following changes were adopted:

- Increase the corridor limits for the actuarial value of assets from 80 percent/120 percent of market value to 60 percent/140 percent of market value on June 30, 2009
- Reduce the corridor limits for the actuarial value of assets to 70 percent/130 percent of market value on June 30, 2010
- Return to the 80 percent/120 percent of market value corridor limits for the actuarial value of assets on June 30, 2011 and thereafter

On April 17, 2013, the CalPERS Board of Administration approved a recommendation to change the CalPERS amortization and rate smoothing policies. Beginning with the June 30, 2013 valuations that set the 2015-16 rates, CalPERS will employ an amortization and smoothing policy that will pay for all gains and losses over a fixed 30-year period with the increases or decreases in the rate spread directly over a 5-year period. Details of the agenda item can be found on our website CalPERS On-Line:
http://www.calpers.ca.gov/index.jsp?bc=/about/committee-meetings/archives/pension-201304.xml

Actuarial Assumptions

Economic Assumptions

Discount Rate

7.5% compounded annually (net of expenses). This assumption is used for all plans.

Termination Liability Discount Rate

The discount rate used for termination valuation is a weighted average of the 10 and 30-year US Treasury yields in effect on the valuation date that equal the duration of the pension liabilities. For purposes of this hypothetical termination liability estimate, the discount rate used, 2.98 percent, is the yield on the 30-year US Treasury Separate Trading of Registered Interest and Principal of Securities (STRIPS) as of June 30, 2012. Please note, as of June 30, 2013 the 30-year STRIPS yield was 3.72 percent.

Salary Growth

Annual increases vary by category, entry age, and duration of service. A sample of assumed increases are shown below.

Public Agency Miscellaneous

Duration of Service	(Entry Age 20)	(Entry Age 30)	(Entry Age 40)
0	0.1420	0.1240	0.0980
1	0.1190	0.1050	0.0850
2	0.1010	0.0910	0.0750
3	0.0880	0.0800	0.0670
4	0.0780	0.0710	0.0610
5	0.0700	0.0650	0.0560
10	0.0480	0.0460	0.0410
15	0.0430	0.0410	0.0360
20	0.0390	0.0370	0.0330
25	0.0360	0.0360	0.0330
30	0.0360	0.0360	0.0330

Public Agency Fire

Duration of Service	(Entry Age 20)	(Entry Age 30)	(Entry Age 40)
0	0.1050	0.1050	0.1020
1	0.0950	0.0940	0.0850
2	0.0870	0.0830	0.0700
3	0.0800	0.0750	0.0600
4	0.0740	0.0680	0.0510
5	0.0690	0.0620	0.0450
10	0.0510	0.0460	0.0350
15	0.0410	0.0390	0.0340
20	0.0370	0.0360	0.0330
25	0.0350	0.0350	0.0330
30	0.0350	0.0350	0.0330

Salary Growth (continued)

Public Agency Police

Duration of Service	(Entry Age 20)	(Entry Age 30)	(Entry Age 40)
0	0.1090	0.1090	0.1090
1	0.0930	0.0930	0.0930
2	0.0810	0.0810	0.0780
3	0.0720	0.0700	0.0640
4	0.0650	0.0610	0.0550
5	0.0590	0.0550	0.0480
10	0.0450	0.0420	0.0340
15	0.0410	0.0390	0.0330
20	0.0370	0.0360	0.0330
25	0.0350	0.0340	0.0330
30	0.0350	0.0340	0.0330

Public Agency County Peace Officers

Duration of Service	(Entry Age 20)	(Entry Age 30)	(Entry Age 40)
0	0.1290	0.1290	0.1290
1	0.1090	0.1060	0.1030
2	0.0940	0.0890	0.0840
3	0.0820	0.0770	0.0710
4	0.0730	0.0670	0.0610
5	0.0660	0.0600	0.0530
10	0.0460	0.0420	0.0380
15	0.0410	0.0380	0.0360
20	0.0370	0.0360	0.0340
25	0.0350	0.0340	0.0330
30	0.0350	0.0340	0.0330

Schools

Duration of Service	(Entry Age 20)	(Entry Age 30)	(Entry Age 40)
0	0.1080	0.0960	0.0820
1	0.0940	0.0850	0.0740
2	0.0840	0.0770	0.0670
3	0.0750	0.0700	0.0620
4	0.0690	0.0640	0.0570
5	0.0630	0.0600	0.0530
10	0.0450	0.0440	0.0410
15	0.0390	0.0380	0.0350
20	0.0360	0.0350	0.0320
25	0.0340	0.0340	0.0320
30	0.0340	0.0340	0.0320

- The Miscellaneous salary scale is used for Local Prosecutors.
- The Police salary scale is used for Other Safety, Local Sheriff, and School Police.

Overall Payroll Growth

3.00 percent compounded annually (used in projecting the payroll over which the unfunded liability is amortized). This assumption is used for all plans.

Inflation

2.75 percent compounded annually. This assumption is used for all plans.

Non-valued Potential Additional Liabilities

The potential liability loss for a cost-of-living increase exceeding the 2.75 percent inflation assumption, and any potential liability loss from future member service purchases are not reflected in the valuation.

Miscellaneous Loading Factors

Credit for Unused Sick Leave

Total years of service is increased by 1 percent for those plans that have accepted the provision providing Credit for Unused Sick Leave.

Conversion of Employer Paid Member Contributions (EPMC)

Total years of service is increased by the Employee Contribution Rate for those plans with the provision providing for the Conversion of Employer Paid Member Contributions (EPMC) during the final compensation period.

Norris Decision (Best Factors)

Employees hired prior to July 1, 1982 have projected benefit amounts increased in order to reflect the use of "Best Factors" in the calculation of optional benefit forms. This is due to a 1983 Supreme Court decision, known as the Norris decision, which required males and females to be treated equally in the determination of benefit amounts. Consequently, anyone already employed at that time is given the best possible conversion factor when optional benefits are determined. No loading is necessary for employees hired after July 1, 1982.

Termination Liability

The termination liabilities include a 7 percent contingency load. This load is for unforeseen improvements in mortality.

Demographic Assumptions

Pre-Retirement Mortality

Non-Industrial Death Rates vary by age and gender. Industrial Death rates vary by age. See sample rates in table below. The non-industrial death rates are used for all plans. The industrial death rates are used for Safety Plans (except for Local Prosecutor safety members where the corresponding Miscellaneous Plan does not have the Industrial Death Benefit).

	Non-Industrial Death (Not Job-Related)		**Industrial Death (Job-Related)**
Age	Male	Female	Male and Female
20	0.00047	0.00016	0.00003
25	0.00050	0.00026	0.00007
30	0.00053	0.00036	0.00010
35	0.00067	0.00046	0.00012
40	0.00087	0.00065	0.00013
45	0.00120	0.00093	0.00014
50	0.00176	0.00126	0.00015
55	0.00260	0.00176	0.00016
60	0.00395	0.00266	0.00017
65	0.00608	0.00419	0.00018
70	0.00914	0.00649	0.00019
75	0.01220	0.00878	0.00020
80	0.01527	0.01108	0.00021

Miscellaneous Plans usually have Industrial Death rates set to zero unless the agency has specifically contracted for Industrial Death benefits. If so, each Non-Industrial Death rate shown above will be split into two components; 99 percent will become the Non-Industrial Death rate and 1 percent will become the Industrial Death rate.

Post-Retirement Mortality

Rates vary by age, type of retirement and gender. See sample rates in table below. These rates are used for all plans.

	Healthy Recipients		Non-Industrially Disabled (Not Job-Related)		Industrially Disabled (Job-Related)	
Age	Male	Female	Male	Female	Male	Female
50	0.00239	0.00125	0.01632	0.01245	0.00443	0.00356
55	0.00474	0.00243	0.01936	0.01580	0.00563	0.00546
60	0.00720	0.00431	0.02293	0.01628	0.00777	0.00798
65	0.01069	0.00775	0.03174	0.01969	0.01388	0.01184
70	0.01675	0.01244	0.03870	0.03019	0.02236	0.01716
75	0.03080	0.02071	0.06001	0.03915	0.03585	0.02665
80	0.05270	0.03749	0.08388	0.05555	0.06926	0.04528
85	0.09775	0.07005	0.14035	0.09577	0.11799	0.08017
90	0.16747	0.12404	0.21554	0.14949	0.16575	0.13775
95	0.25659	0.21556	0.31025	0.23055	0.26108	0.23331
100	0.34551	0.31876	0.45905	0.37662	0.40918	0.35165
105	0.58527	0.56093	0.67923	0.61523	0.64127	0.60135
110	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000

The mortality assumptions are based on mortality rates resulting from the most recent CalPERS Experience Study adopted by the CalPERS Board, first used in the June 30, 2009 valuation. For purposes of the post-retirement mortality rates, those revised rates include 5 years of projected on-going mortality improvement using Scale AA published by the Society of Actuaries until June 30, 2010. There is no margin for future mortality improvement beyond the valuation date. The mortality assumption will be reviewed with the next experience study expected to be completed for the June 30, 2013 valuation to determine an appropriate margin to be used.

Marital Status

For active members, a percentage who are married upon retirement is assumed according to member category as shown in the following table.

Member Category	Percent Married
Miscellaneous Member	85%
Local Police	90%
Local Fire	90%
Other Local Safety	90%
School Police	90%

Age of Spouse

It is assumed that female spouses are 3 years younger than male spouses are. This assumption is used for all plans.

Terminated Members

It is assumed that terminated members refund immediately if non-vested. Terminated members who are vested are assumed to follow the same service retirement pattern as active members but with a load to reflect the expected higher rates of retirement, especially at lower ages. The following table shows the load factors that are applied to the service retirement assumption for active members to obtain the service retirement pattern for separated vested members:

Age	Load Factor
50	450%
51	250%
52 through 56	200%
57 through 60	150%
61 through 64	125%
65 and above	100% (no change)

Termination with Refund

Rates vary by entry age and service for Miscellaneous Plans. Rates vary by service for Safety Plans. See sample rates in tables below.

Public Agency Miscellaneous

Duration of Service	Entry Age 20	Entry Age 25	Entry Age 30	Entry Age 35	Entry Age 40	Entry Age 45
0	0.1742	0.1674	0.1606	0.1537	0.1468	0.1400
1	0.1545	0.1477	0.1409	0.1339	0.1271	0.1203
2	0.1348	0.1280	0.1212	0.1142	0.1074	0.1006
3	0.1151	0.1083	0.1015	0.0945	0.0877	0.0809
4	0.0954	0.0886	0.0818	0.0748	0.0680	0.0612
5	0.0212	0.0193	0.0174	0.0155	0.0136	0.0116
10	0.0138	0.0121	0.0104	0.0088	0.0071	0.0055
15	0.0060	0.0051	0.0042	0.0032	0.0023	0.0014
20	0.0037	0.0029	0.0021	0.0013	0.0005	0.0001
25	0.0017	0.0011	0.0005	0.0001	0.0001	0.0001
30	0.0005	0.0001	0.0001	0.0001	0.0001	0.0001
35	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

Public Agency Safety

Duration of Service	Fire	Police	County Peace Officer
0	0.0710	0.1013	0.0997
1	0.0554	0.0636	0.0782
2	0.0398	0.0271	0.0566
3	0.0242	0.0258	0.0437
4	0.0218	0.0245	0.0414
5	0.0029	0.0086	0.0145
10	0.0009	0.0053	0.0089
15	0.0006	0.0027	0.0045
20	0.0005	0.0017	0.0020
25	0.0003	0.0012	0.0009
30	0.0003	0.0009	0.0006
35	0.0003	0.0009	0.0006

The Police Termination and Refund rates are also used for Public Agency Local Prosecutors, Other Safety, Local Sheriff and School Police.

Schools

Duration of Service	Entry Age 20	Entry Age 25	Entry Age 30	Entry Age 35	Entry Age 40	Entry Age 45
0	0.1730	0.1627	0.1525	0.1422	0.1319	0.1217
1	0.1585	0.1482	0.1379	0.1277	0.1174	0.1071
2	0.1440	0.1336	0.1234	0.1131	0.1028	0.0926
3	0.1295	0.1192	0.1089	0.0987	0.0884	0.0781
4	0.1149	0.1046	0.0944	0.0841	0.0738	0.0636
5	0.0278	0.0249	0.0221	0.0192	0.0164	0.0135
10	0.0172	0.0147	0.0122	0.0098	0.0074	0.0049
15	0.0115	0.0094	0.0074	0.0053	0.0032	0.0011
20	0.0073	0.0055	0.0038	0.0020	0.0002	0.0002
25	0.0037	0.0023	0.0010	0.0002	0.0002	0.0002
30	0.0015	0.0003	0.0002	0.0002	0.0002	0.0002
35	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002

Termination with Vested Benefits

Rates vary by entry age and service for Miscellaneous Plans. Rates vary by service for Safety Plans. See sample rates in tables below.

Public Agency Miscellaneous

Duration of Service	Entry Age 20	Entry Age 25	Entry Age 30	Entry Age 35	Entry Age 40
5	0.0656	0.0597	0.0537	0.0477	0.0418
10	0.0530	0.0466	0.0403	0.0339	0.0000
15	0.0443	0.0373	0.0305	0.0000	0.0000
20	0.0333	0.0261	0.0000	0.0000	0.0000
25	0.0212	0.0000	0.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000	0.0000
35	0.0000	0.0000	0.0000	0.0000	0.0000

Public Agency Safety

Duration of Service	Fire	Police	County Peace Officer
5	0.0162	0.0163	0.0265
10	0.0061	0.0126	0.0204
15	0.0058	0.0082	0.0130
20	0.0053	0.0065	0.0074
25	0.0047	0.0058	0.0043
30	0.0045	0.0056	0.0030
35	0.0000	0.0000	0.0000

- When a member is eligible to retire, the termination with vested benefits probability is set to zero.
- After termination with vested benefits, a miscellaneous member is assumed to retire at age 59 and a safety member at age 54.
- The Police Termination with vested benefits rates are also used for Public Agency Local Prosecutors, Other Safety, Local Sheriff and School Police.

Schools

Duration of Service	Entry Age 20	Entry Age 25	Entry Age 30	Entry Age 35	Entry Age 40
5	0.0816	0.0733	0.0649	0.0566	0.0482
10	0.0629	0.0540	0.0450	0.0359	0.0000
15	0.0537	0.0440	0.0344	0.0000	0.0000
20	0.0420	0.0317	0.0000	0.0000	0.0000
25	0.0291	0.0000	0.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000	0.0000
35	0.0000	0.0000	0.0000	0.0000	0.0000

Non-Industrial (Not Job-Related) Disability

Rates vary by age and gender for Miscellaneous Plans. Rates vary by age and category for Safety Plans.

	Miscellaneous		Fire	Police	County Peace Officer	Schools	
Age	Male	Female	Male and Female	Male and Female	Male and Female	Male	Female
20	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
25	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
30	0.0002	0.0002	0.0001	0.0002	0.0001	0.0002	0.0001
35	0.0006	0.0009	0.0001	0.0003	0.0004	0.0006	0.0004
40	0.0015	0.0016	0.0001	0.0004	0.0007	0.0014	0.0009
45	0.0025	0.0024	0.0002	0.0005	0.0013	0.0028	0.0017
50	0.0033	0.0031	0.0005	0.0008	0.0018	0.0044	0.0030
55	0.0037	0.0031	0.0010	0.0013	0.0010	0.0049	0.0034
60	0.0038	0.0025	0.0015	0.0020	0.0006	0.0043	0.0024

- The Miscellaneous Non-Industrial Disability rates are used for Local Prosecutors.
- The Police Non-Industrial Disability rates are also used for Other Safety, Local Sheriff and School Police.

Industrial (Job-Related) Disability

Rates vary by age and category.

Age	Fire	Police	County Peace Officer
20	0.0002	0.0007	0.0003
25	0.0012	0.0032	0.0015
30	0.0025	0.0064	0.0031
35	0.0037	0.0097	0.0046
40	0.0049	0.0129	0.0063
45	0.0061	0.0161	0.0078
50	0.0074	0.0192	0.0101
55	0.0721	0.0668	0.0173
60	0.0721	0.0668	0.0173

- The Police Industrial Disability rates are also used for Local Sheriff and Other Safety.
- Fifty Percent of the Police Industrial Disability rates are used for School Police.
- One Percent of the Police Industrial Disability rates are used for Local Prosecutors.
- Normally, rates are zero for Miscellaneous Plans unless the agency has specifically contracted for Industrial Disability benefits. If so, each miscellaneous non-industrial disability rate will be split into two components: 50 percent will become the Non-Industrial Disability rate and 50 percent will become the Industrial Disability rate.

Service Retirement

Retirement rates vary by age, service, and formula, except for the safety ½ @ 55 and 2% @ 55 formulas, where retirement rates vary by age only.

Service Retirement

Public Agency Miscellaneous 1.5% @ 65

	Duration of Service					
Age	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.008	0.011	0.013	0.015	0.017	0.019
51	0.007	0.010	0.012	0.013	0.015	0.017
52	0.010	0.014	0.017	0.019	0.021	0.024
53	0.008	0.012	0.015	0.017	0.019	0.022
54	0.012	0.016	0.019	0.022	0.025	0.028
55	0.018	0.025	0.031	0.035	0.038	0.043
56	0.015	0.021	0.025	0.029	0.032	0.036
57	0.020	0.028	0.033	0.038	0.043	0.048
58	0.024	0.033	0.040	0.046	0.052	0.058
59	0.028	0.039	0.048	0.054	0.060	0.067
60	0.049	0.069	0.083	0.094	0.105	0.118
61	0.062	0.087	0.106	0.120	0.133	0.150
62	0.104	0.146	0.177	0.200	0.223	0.251
63	0.099	0.139	0.169	0.191	0.213	0.239
64	0.097	0.136	0.165	0.186	0.209	0.233
65	0.140	0.197	0.240	0.271	0.302	0.339
66	0.092	0.130	0.157	0.177	0.198	0.222
67	0.129	0.181	0.220	0.249	0.277	0.311
68	0.092	0.129	0.156	0.177	0.197	0.221
69	0.092	0.130	0.158	0.178	0.199	0.224
70	0.103	0.144	0.175	0.198	0.221	0.248

Public Agency Miscellaneous 2% @ 60

	Duration of Service					
Age	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.011	0.015	0.018	0.021	0.023	0.026
51	0.009	0.013	0.016	0.018	0.020	0.023
52	0.013	0.018	0.022	0.025	0.028	0.031
53	0.011	0.016	0.019	0.022	0.025	0.028
54	0.015	0.021	0.025	0.028	0.032	0.036
55	0.023	0.032	0.039	0.044	0.049	0.055
56	0.019	0.027	0.032	0.037	0.041	0.046
57	0.025	0.035	0.042	0.048	0.054	0.060
58	0.030	0.042	0.051	0.058	0.065	0.073
59	0.035	0.049	0.060	0.068	0.076	0.085
60	0.062	0.087	0.105	0.119	0.133	0.149
61	0.079	0.110	0.134	0.152	0.169	0.190
62	0.132	0.186	0.225	0.255	0.284	0.319
63	0.126	0.178	0.216	0.244	0.272	0.305
64	0.122	0.171	0.207	0.234	0.262	0.293
65	0.173	0.243	0.296	0.334	0.373	0.418
66	0.114	0.160	0.194	0.219	0.245	0.274
67	0.159	0.223	0.271	0.307	0.342	0.384
68	0.113	0.159	0.193	0.218	0.243	0.273
69	0.114	0.161	0.195	0.220	0.246	0.276
70	0.127	0.178	0.216	0.244	0.273	0.306

Service Retirement

Public Agency Miscellaneous 2% @ 55

Age	Duration of Service					
	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.015	0.020	0.024	0.029	0.033	0.039
51	0.013	0.016	0.020	0.024	0.027	0.033
52	0.014	0.018	0.022	0.027	0.030	0.036
53	0.017	0.022	0.027	0.032	0.037	0.043
54	0.027	0.034	0.041	0.049	0.056	0.067
55	0.050	0.064	0.078	0.094	0.107	0.127
56	0.045	0.057	0.069	0.083	0.095	0.113
57	0.048	0.061	0.074	0.090	0.102	0.122
58	0.052	0.066	0.080	0.097	0.110	0.131
59	0.060	0.076	0.092	0.111	0.127	0.151
60	0.072	0.092	0.112	0.134	0.153	0.182
61	0.089	0.113	0.137	0.165	0.188	0.224
62	0.128	0.162	0.197	0.237	0.270	0.322
63	0.129	0.164	0.199	0.239	0.273	0.325
64	0.116	0.148	0.180	0.216	0.247	0.294
65	0.174	0.221	0.269	0.323	0.369	0.439
66	0.135	0.171	0.208	0.250	0.285	0.340
67	0.133	0.169	0.206	0.247	0.282	0.336
68	0.118	0.150	0.182	0.219	0.250	0.297
69	0.116	0.147	0.179	0.215	0.246	0.293
70	0.138	0.176	0.214	0.257	0.293	0.349

Public Agency Miscellaneous 2.5% @ 55

Age	Duration of Service					
	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.026	0.033	0.040	0.048	0.055	0.062
51	0.021	0.026	0.032	0.038	0.043	0.049
52	0.021	0.026	0.032	0.038	0.043	0.049
53	0.026	0.033	0.040	0.048	0.055	0.062
54	0.043	0.054	0.066	0.078	0.089	0.101
55	0.088	0.112	0.136	0.160	0.184	0.208
56	0.055	0.070	0.085	0.100	0.115	0.130
57	0.061	0.077	0.094	0.110	0.127	0.143
58	0.072	0.091	0.111	0.130	0.150	0.169
59	0.083	0.105	0.128	0.150	0.173	0.195
60	0.088	0.112	0.136	0.160	0.184	0.208
61	0.083	0.105	0.128	0.150	0.173	0.195
62	0.121	0.154	0.187	0.220	0.253	0.286
63	0.105	0.133	0.162	0.190	0.219	0.247
64	0.105	0.133	0.162	0.190	0.219	0.247
65	0.143	0.182	0.221	0.260	0.299	0.338
66	0.105	0.133	0.162	0.190	0.219	0.247
67	0.105	0.133	0.162	0.190	0.219	0.247
68	0.105	0.133	0.162	0.190	0.219	0.247
69	0.105	0.133	0.162	0.190	0.219	0.247
70	0.125	0.160	0.194	0.228	0.262	0.296

Service Retirement

Public Agency Miscellaneous 2.7% @ 55

	Duration of Service					
Age	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.028	0.035	0.043	0.050	0.058	0.065
51	0.022	0.028	0.034	0.040	0.046	0.052
52	0.022	0.028	0.034	0.040	0.046	0.052
53	0.028	0.035	0.043	0.050	0.058	0.065
54	0.044	0.056	0.068	0.080	0.092	0.104
55	0.091	0.116	0.140	0.165	0.190	0.215
56	0.061	0.077	0.094	0.110	0.127	0.143
57	0.063	0.081	0.098	0.115	0.132	0.150
58	0.074	0.095	0.115	0.135	0.155	0.176
59	0.083	0.105	0.128	0.150	0.173	0.195
60	0.088	0.112	0.136	0.160	0.184	0.208
61	0.085	0.109	0.132	0.155	0.178	0.202
62	0.124	0.158	0.191	0.225	0.259	0.293
63	0.107	0.137	0.166	0.195	0.224	0.254
64	0.107	0.137	0.166	0.195	0.224	0.254
65	0.146	0.186	0.225	0.265	0.305	0.345
66	0.107	0.137	0.166	0.195	0.224	0.254
67	0.107	0.137	0.166	0.195	0.224	0.254
68	0.107	0.137	0.166	0.195	0.224	0.254
69	0.107	0.137	0.166	0.195	0.224	0.254
70	0.129	0.164	0.199	0.234	0.269	0.304

Public Agency Miscellaneous 3% @ 60

	Duration of Service					
Age	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.026	0.033	0.040	0.048	0.055	0.062
51	0.021	0.026	0.032	0.038	0.043	0.049
52	0.019	0.025	0.030	0.035	0.040	0.046
53	0.025	0.032	0.038	0.045	0.052	0.059
54	0.039	0.049	0.060	0.070	0.081	0.091
55	0.083	0.105	0.128	0.150	0.173	0.195
56	0.055	0.070	0.085	0.100	0.115	0.130
57	0.061	0.077	0.094	0.110	0.127	0.143
58	0.072	0.091	0.111	0.130	0.150	0.169
59	0.080	0.102	0.123	0.145	0.167	0.189
60	0.094	0.119	0.145	0.170	0.196	0.221
61	0.088	0.112	0.136	0.160	0.184	0.208
62	0.127	0.161	0.196	0.230	0.265	0.299
63	0.110	0.140	0.170	0.200	0.230	0.260
64	0.110	0.140	0.170	0.200	0.230	0.260
65	0.149	0.189	0.230	0.270	0.311	0.351
66	0.110	0.140	0.170	0.200	0.230	0.260
67	0.110	0.140	0.170	0.200	0.230	0.260
68	0.110	0.140	0.170	0.200	0.230	0.260
69	0.110	0.140	0.170	0.200	0.230	0.260
70	0.132	0.168	0.204	0.240	0.276	0.312

Service Retirement

Public Agency Fire ½ @ 55 and 2% @ 55

Age	Rate	Age	Rate
50	0.01588	56	0.11079
51	0.00000	57	0.00000
52	0.03442	58	0.09499
53	0.01990	59	0.04409
54	0.04132	60	1.00000
55	0.07513		

Public Agency Police ½ @ 55 and 2% @ 55

Age	Rate	Age	Rate
50	0.02552	56	0.06921
51	0.00000	57	0.05113
52	0.01637	58	0.07241
53	0.02717	59	0.07043
54	0.00949	60	1.00000
55	0.16674		

Public Agency Police 2%@ 50

	Duration of Service					
Age	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.014	0.014	0.014	0.014	0.025	0.045
51	0.012	0.012	0.012	0.012	0.023	0.040
52	0.026	0.026	0.026	0.026	0.048	0.086
53	0.052	0.052	0.052	0.052	0.096	0.171
54	0.070	0.070	0.070	0.070	0.128	0.227
55	0.090	0.090	0.090	0.090	0.165	0.293
56	0.064	0.064	0.064	0.064	0.117	0.208
57	0.071	0.071	0.071	0.071	0.130	0.232
58	0.063	0.063	0.063	0.063	0.115	0.205
59	0.140	0.140	0.140	0.140	0.174	0.254
60	0.140	0.140	0.140	0.140	0.172	0.251
61	0.140	0.140	0.140	0.140	0.172	0.251
62	0.140	0.140	0.140	0.140	0.172	0.251
63	0.140	0.140	0.140	0.140	0.172	0.251
64	0.140	0.140	0.140	0.140	0.172	0.251
65	1.000	1.000	1.000	1.000	1.000	1.000

- These rates also apply to Local Prosecutors, Local Sheriff, School Police and Other Safety.

Service Retirement

Public Agency Fire 2%@50

Age	Duration of Service					
	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.007	0.007	0.007	0.007	0.010	0.015
51	0.008	0.008	0.008	0.008	0.013	0.019
52	0.017	0.017	0.017	0.017	0.027	0.040
53	0.047	0.047	0.047	0.047	0.072	0.107
54	0.064	0.064	0.064	0.064	0.098	0.147
55	0.087	0.087	0.087	0.087	0.134	0.200
56	0.078	0.078	0.078	0.078	0.120	0.180
57	0.090	0.090	0.090	0.090	0.139	0.208
58	0.079	0.079	0.079	0.079	0.122	0.182
59	0.073	0.073	0.073	0.073	0.112	0.168
60	0.114	0.114	0.114	0.114	0.175	0.262
61	0.114	0.114	0.114	0.114	0.175	0.262
62	0.114	0.114	0.114	0.114	0.175	0.262
63	0.114	0.114	0.114	0.114	0.175	0.262
64	0.114	0.114	0.114	0.114	0.175	0.262
65	1.000	1.000	1.000	1.000	1.000	1.000

Public Agency Police 3%@ 55

Age	Duration of Service					
	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.019	0.019	0.019	0.019	0.040	0.060
51	0.024	0.024	0.024	0.024	0.049	0.074
52	0.024	0.024	0.024	0.024	0.051	0.077
53	0.059	0.059	0.059	0.059	0.121	0.183
54	0.069	0.069	0.069	0.069	0.142	0.215
55	0.116	0.116	0.116	0.116	0.240	0.363
56	0.076	0.076	0.076	0.076	0.156	0.236
57	0.058	0.058	0.058	0.058	0.120	0.181
58	0.076	0.076	0.076	0.076	0.157	0.237
59	0.094	0.094	0.094	0.094	0.193	0.292
60	0.141	0.141	0.141	0.141	0.290	0.438
61	0.094	0.094	0.094	0.094	0.193	0.292
62	0.118	0.118	0.118	0.118	0.241	0.365
63	0.094	0.094	0.094	0.094	0.193	0.292
64	0.094	0.094	0.094	0.094	0.193	0.292
65	1.000	1.000	1.000	1.000	1.000	1.000

- These rates also apply to Local Prosecutors, Local Sheriff, School Police and Other Safety.

Service Retirement

Public Agency Fire 3%@55

	Duration of Service					
Age	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.012	0.012	0.012	0.018	0.028	0.033
51	0.008	0.008	0.008	0.012	0.019	0.022
52	0.018	0.018	0.018	0.027	0.042	0.050
53	0.043	0.043	0.043	0.062	0.098	0.114
54	0.057	0.057	0.057	0.083	0.131	0.152
55	0.092	0.092	0.092	0.134	0.211	0.246
56	0.081	0.081	0.081	0.118	0.187	0.218
57	0.100	0.100	0.100	0.146	0.230	0.268
58	0.081	0.081	0.081	0.119	0.187	0.219
59	0.078	0.078	0.078	0.113	0.178	0.208
60	0.117	0.117	0.117	0.170	0.267	0.312
61	0.078	0.078	0.078	0.113	0.178	0.208
62	0.098	0.098	0.098	0.141	0.223	0.260
63	0.078	0.078	0.078	0.113	0.178	0.208
64	0.078	0.078	0.078	0.113	0.178	0.208
65	1.000	1.000	1.000	1.000	1.000	1.000

Public Agency Police 3%@ 50

	Duration of Service					
Age	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.070	0.070	0.070	0.131	0.193	0.249
51	0.050	0.050	0.050	0.095	0.139	0.180
52	0.061	0.061	0.061	0.116	0.171	0.220
53	0.069	0.069	0.069	0.130	0.192	0.247
54	0.071	0.071	0.071	0.134	0.197	0.255
55	0.090	0.090	0.090	0.170	0.250	0.322
56	0.069	0.069	0.069	0.130	0.191	0.247
57	0.080	0.080	0.080	0.152	0.223	0.288
58	0.087	0.087	0.087	0.164	0.242	0.312
59	0.090	0.090	0.090	0.170	0.251	0.323
60	0.135	0.135	0.135	0.255	0.377	0.485
61	0.090	0.090	0.090	0.170	0.251	0.323
62	0.113	0.113	0.113	0.213	0.314	0.404
63	0.090	0.090	0.090	0.170	0.251	0.323
64	0.090	0.090	0.090	0.170	0.251	0.323
65	1.000	1.000	1.000	1.000	1.000	1.000

- These rates also apply to Local Prosecutors, Local Sheriff, School Police and Other Safety.

Service Retirement

Public Agency Fire 3%@50

	Duration of Service					
Age	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.034	0.034	0.034	0.048	0.068	0.080
51	0.046	0.046	0.046	0.065	0.092	0.109
52	0.069	0.069	0.069	0.097	0.138	0.163
53	0.084	0.084	0.084	0.117	0.166	0.197
54	0.103	0.103	0.103	0.143	0.204	0.241
55	0.127	0.127	0.127	0.177	0.252	0.298
56	0.121	0.121	0.121	0.169	0.241	0.285
57	0.101	0.101	0.101	0.141	0.201	0.238
58	0.118	0.118	0.118	0.165	0.235	0.279
59	0.100	0.100	0.100	0.140	0.199	0.236
60	0.150	0.150	0.150	0.210	0.299	0.354
61	0.100	0.100	0.100	0.140	0.199	0.236
62	0.125	0.125	0.125	0.175	0.249	0.295
63	0.100	0.100	0.100	0.140	0.199	0.236
64	0.100	0.100	0.100	0.140	0.199	0.236
65	1.000	1.000	1.000	1.000	1.000	1.000

Schools 2%@ 55

	Duration of Service					
Age	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.005	0.009	0.013	0.015	0.016	0.018
51	0.005	0.010	0.014	0.017	0.019	0.021
52	0.006	0.012	0.017	0.020	0.022	0.025
53	0.007	0.014	0.019	0.023	0.026	0.029
54	0.012	0.024	0.033	0.039	0.044	0.049
55	0.024	0.048	0.067	0.079	0.088	0.099
56	0.020	0.039	0.055	0.065	0.072	0.081
57	0.021	0.042	0.059	0.070	0.078	0.087
58	0.025	0.050	0.070	0.083	0.092	0.103
59	0.029	0.057	0.080	0.095	0.105	0.118
60	0.037	0.073	0.102	0.121	0.134	0.150
61	0.046	0.090	0.126	0.149	0.166	0.186
62	0.076	0.151	0.212	0.250	0.278	0.311
63	0.069	0.136	0.191	0.225	0.251	0.281
64	0.067	0.133	0.185	0.219	0.244	0.273
65	0.091	0.180	0.251	0.297	0.331	0.370
66	0.072	0.143	0.200	0.237	0.264	0.295
67	0.067	0.132	0.185	0.218	0.243	0.272
68	0.060	0.118	0.165	0.195	0.217	0.243
69	0.067	0.133	0.187	0.220	0.246	0.275
70	0.066	0.131	0.183	0.216	0.241	0.270

Miscellaneous

Superfunded Status

Prior to enactment of the Public Employees' Pension Reform Act (PEPRA) that became effective January 1, 2013, a plan in superfunded status (actuarial value of assets exceeding present value of benefits) would normally pay a zero employer contribution rate while also being permitted to use its superfunded assets to pay its employees' normal member contributions.

However, Section 7522.52(a) of PEPRA states, "In any fiscal year a public employer's contribution to a defined benefit plan, in combination with employee contributions to that defined benefit plan, shall not be less than the total normal cost rate…" This means that not only must employers pay their employer normal cost regardless of plan surplus, but also, employers may no longer use superfunded assets to pay employee normal member contributions.

Internal Revenue Code Section 415

The limitations on benefits imposed by Internal Revenue Code Section 415 are taken into account in this valuation. Each year the impact of any changes in this limitation since the prior valuation is included and amortized as part of the actuarial gain or loss base. This results in lower contributions for those employers contributing to the Replacement Benefit Fund and protects CalPERS from prefunding expected benefits in excess of limits imposed by federal tax law.

Internal Revenue Code Section 401(a)(17)

The limitations on compensation imposed by Internal Revenue Code Section 401(a)(17) are taken into account in this valuation. Each year, the impact of any changes in the compensation limitation since the prior valuation is included and amortized as part of the actuarial gain or loss base.

PEPRA Assumptions

The Public Employees' Pension Reform Act of 2013 (PEPRA) mandated new benefit formulas and new member contributions for new members (as defined by PEPRA) hired after January 1, 2013. For non-pooled plans, these new members will first be reflected in the June 30, 2013 non-pooled plan valuations. New members in pooled plans will first be reflected in the new Miscellaneous and Safety risk pools created by the CalPERS Board in November 2012 in response to the passage of PEPRA, also beginning with the June 30, 2013 valuation. Different assumptions for these new PEPRA members will be disclosed in the 2013 valuation.

APPENDIX B

PRINCIPAL PLAN PROVISIONS

The following is a description of the principal plan provisions used in calculating costs and liabilities. We have indicated whether a plan provision is standard or optional. Standard benefits are applicable to all members while optional benefits vary among employers. Optional benefits that apply to a single period of time, such as Golden Handshakes, have not been included. Many of the statements in this summary are general in nature, and are intended to provide an easily understood summary of the complex Public Employees' Retirement Law. The law itself governs in all situations.

PEPRA Benefit Changes

The Public Employees' Pension Reform Act of 2013 (PEPRA) requires new benefits and member contributions for new members as defined by PEPRA, that are hired after January 1, 2013. For non-pooled plans, these members will first be reflected in June 30, 2013 non-pooled plan valuations. Members in pooled plans will be reflected in the new Miscellaneous and Safety risk pools created by the CalPERS Board in November 2012 in response to the passage of PEPRA, beginning with the June 30, 2013 valuation.

Service Retirement

Eligibility

A classic CalPERS member becomes eligible for Service Retirement upon attainment of age 50 with at least 5 years of credited service (total service across all CalPERS employers, and with certain other Retirement Systems with which CalPERS has reciprocity agreements). For employees hired into a plan with the 1.5% at 65 formula, eligibility for service retirement is age 55 with at least 5 years of service.

Benefit

The Service Retirement benefit is a monthly allowance equal to the product of the *benefit factor*, *years of service*, and *final compensation.*

- The *benefit factor* depends on the benefit formula specified in your agency's contract. The table below shows the factors for each of the available formulas. Factors vary by the member's age at retirement. Listed are the factors for retirement at whole year ages:

<u>Miscellaneous Plan Formulas</u>

Retirement Age	1.5% at 65	2% at 60	2% at 55	2.5% at 55	2.7% at 55	3% at 60
50	0.5000%	1.092%	1.426%	2.0%	2.0%	2.0%
51	0.5667%	1.156%	1.522%	2.1%	2.14%	2.1%
52	0.6334%	1.224%	1.628%	2.2%	2.28%	2.2%
53	0.7000%	1.296%	1.742%	2.3%	2.42%	2.3%
54	0.7667%	1.376%	1.866%	2.4%	2.56%	2.4%
55	0.8334%	1.460%	2.0%	2.5%	2.7%	2.5%
56	0.9000%	1.552%	2.052%	2.5%	2.7%	2.6%
57	0.9667%	1.650%	2.104%	2.5%	2.7%	2.7%
58	1.0334%	1.758%	2.156%	2.5%	2.7%	2.8%
59	1.1000%	1.874%	2.210%	2.5%	2.7%	2.9%
60	1.1667%	2.0%	2.262%	2.5%	2.7%	3.0%
61	1.2334%	2.134%	2.314%	2.5%	2.7%	3.0%
62	1.3000%	2.272%	2.366%	2.5%	2.7%	3.0%
63	1.3667%	2.418%	2.418%	2.5%	2.7%	3.0%
64	1.4334%	2.418%	2.418%	2.5%	2.7%	3.0%
65 & Up	1.5000%	2.418%	2.418%	2.5%	2.7%	3.0%

Safety Plan Formulas

Retirement Age	½ at 55 *	2% at 55	2% at 50	3% at 55	3% at 50
50	1.783%	1.426%	2.0%	2.40%	3.0%
51	1.903%	1.522%	2.14%	2.52%	3.0%
52	2.035%	1.628%	2.28%	2.64%	3.0%
53	2.178%	1.742%	2.42%	2.76%	3.0%
54	2.333%	1.866%	2.56%	2.88%	3.0%
55 & Up	2.5%	2.0%	2.7%	3.0%	3.0%

* For this formula, the benefit factor also varies by entry age. The factors shown are for members with an entry age of 35 or greater. If entry age is less than 35, then the age 55 benefit factor is 50% divided by the difference between age 55 and entry age. The benefit factor for ages prior to age 55 is the same proportion of the age 55 benefit factor as in the above table.

- The *years of service* is the amount credited by CalPERS to a member while he or she is employed in this group (or for other periods that are recognized under the employer's contract with CalPERS). For a member who has earned service with multiple CalPERS employers, the benefit from each employer is calculated separately according to each employer's contract, and then added together for the total allowance. An agency may contract for an optional benefit where any unused sick leave accumulated at the time of retirement will be converted to credited service at a rate of 0.004 years of service for each day of sick leave.

- The *final compensation* is the monthly average of the member's highest 36 or 12 consecutive months' full-time equivalent monthly pay (no matter which CalPERS employer paid this compensation). The standard benefit is 36 months. Employers have the option of providing a final compensation equal to the highest 12 consecutive months. Final compensation must be defined by the highest 36 consecutive months' pay under the 1.5% at 65 formula.

- Employees must be covered by Social Security with the 1.5% at 65 formula. Social Security is optional for all other benefit formulas. For employees covered by Social Security, the Modified formula is the standard benefit. Under this type of formula, the final compensation is offset by $133.33 (or by one third if the final compensation is less than $400). Employers may contract for the Full benefit with Social Security that will eliminate the offset applicable to the final compensation. For employees not covered by Social Security, the Full benefit is paid with no offsets. Auxiliary organizations of the CSUC system may elect reduced contribution rates, in which case the offset is $317 if members are not covered by Social Security or $513 if members are covered by Social Security.

- The Miscellaneous Service Retirement benefit is not capped. The Safety Service Retirement benefit is capped at 90 percent of final compensation.

Vested Deferred Retirement

Eligibility for Deferred Status

A CalPERS member becomes eligible for a deferred vested retirement benefit when he or she leaves employment, keeps his or her contribution account balance on deposit with CalPERS, **and** has earned at least 5 years of credited service (total service across all CalPERS employers, and with certain other Retirement Systems with which CalPERS has reciprocity agreements).

Eligibility to Start Receiving Benefits
The CalPERS member becomes eligible to receive the deferred retirement benefit upon satisfying the eligibility requirements for Deferred Status and upon attainment of age 50 (55 for employees hired into a 1.5% @ 65 plan).

Benefit
The vested deferred retirement benefit is the same as the Service Retirement benefit, where the benefit factor is based on the member's age at allowance commencement. For members who have earned service with multiple CalPERS employers, the benefit from each employer is calculated separately according to each employer's contract, and then added together for the total allowance.

Non-Industrial (Non-Job Related) Disability Retirement

Eligibility
A CalPERS member is eligible for Non-Industrial Disability Retirement if he or she becomes *disabled* and has at least 5 years of credited service (total service across all CalPERS employers, and with certain other Retirement Systems with which CalPERS has reciprocity agreements). There is no special age requirement. *Disabled* means the member is unable to perform his or her job because of an illness or injury, which is expected to be permanent or to last indefinitely. The illness or injury does not have to be job related. A CalPERS member must be actively employed by any CalPERS employer at the time of disability in order to be eligible for this benefit.

Standard Benefit
The standard Non-Industrial Disability Retirement benefit is a monthly allowance equal to 1.8 percent of final compensation, multiplied by *service*, which is determined as follows:

- *Service* is CalPERS credited service, for members with less than 10 years of service or greater than 18.518 years of service; or

- *Service* is CalPERS credited service plus the additional number of years that the member would have worked until age 60, for members with at least 10 years but not more than 18.518 years of service. The maximum benefit in this case is 33 1/3 percent of Final Compensation.

Improved Benefit
Employers have the option of providing the improved Non-Industrial Disability Retirement benefit. This benefit provides a monthly allowance equal to 30% of final compensation for the first 5 years of service, plus 1% for each additional year of service to a maximum of 50% of final compensation.

Members who are eligible for a larger service retirement benefit may choose to receive that benefit in lieu of a disability benefit. Members eligible to retire, and who have attained the normal retirement age determined by their service retirement benefit formula, will receive the same dollar amount for disability retirement as that payable for service retirement. For members who have earned service with multiple CalPERS employers, the benefit attributed to each employer is the total disability allowance multiplied by the ratio of service with a particular employer to the total CalPERS service.

Industrial (Job Related) Disability Retirement

All safety members have this benefit. For miscellaneous members, employers have the option of providing this benefit. An employer may choose to provide the Increased benefit option or the Improved benefit option.

Eligibility
An employee is eligible for Industrial Disability Retirement if he or she becomes disabled while working, where disabled means the member is unable to perform the duties of the job because of a work-related illness or injury, which is, expected to be permanent or to last indefinitely. A CalPERS member who has left active employment within this group is not eligible for this benefit, except to the extent described below.

Standard Benefit
The standard Industrial Disability Retirement benefit is a monthly allowance equal to 50 percent of final compensation.

Increased Benefit (75 percent of Final Compensation)
The increased Industrial Disability Retirement benefit is a monthly allowance equal to 75 percent final compensation for total disability.

Improved Benefit (50 percent to 90 percent of Final Compensation)
The improved Industrial Disability Retirement benefit is a monthly allowance equal to the Workman's Compensation Appeals Board permanent disability rate percentage (if 50 percent or greater, with a maximum of 90 percent) times the final compensation.

For a CalPERS member not actively employed in this group who became disabled while employed by some other CalPERS employer, the benefit is a return of accumulated member contributions with respect to employment in this group. With the standard or increased benefit, a member may also choose to receive the annuitization of the accumulated member contributions.

If a member is eligible for Service Retirement and if the Service Retirement benefit is more than the Industrial Disability Retirement benefit, the member may choose to receive the larger benefit.

Post-Retirement Death Benefit

Standard Lump Sum Payment
Upon the death of a retiree, a one-time lump sum payment of $500 will be made to the retiree's designated survivor(s), or to the retiree's estate.

Improved Lump Sum Payment
Employers have the option of providing an improved lump sum death benefit of $600, $2,000, $3,000, $4,000 or $5,000.

Form of Payment for Retirement Allowance

Standard Form of Payment
Generally, the retirement allowance is paid to the retiree in the form of an annuity for as long as he or she is alive. The retiree may choose to provide for a portion of his or her allowance to be paid to any designated beneficiary after the retiree's death. CalPERS provides for a variety of such benefit options, which the retiree pays for by taking a reduction in his or her retirement allowance. Such reduction takes into account the amount to be provided to the beneficiary and the probable duration of payments (based on the ages of the member and beneficiary) made subsequent to the member's death.

Improved Form of Payment (Post Retirement Survivor Allowance)
Employers have the option to contract for the post retirement survivor allowance.

For retirement allowances with respect to service subject to the modified formula, 25 percent of the retirement allowance will automatically be continued to certain statutory beneficiaries upon the death of the retiree, without a reduction in the retiree's allowance. For retirement allowances with respect to service subject to the full or supplemental formula, 50 percent of the retirement allowance will automatically be continued to certain statutory beneficiaries upon the death of the retiree, without a reduction in the retiree's allowance. This additional benefit is often referred to as post retirement survivor allowance (PRSA) or simply as survivor continuance.

In other words, 25 percent or 50 percent of the allowance, the continuance portion, is paid to the retiree for as long as he or she is alive, and that same amount is continued to the retiree's spouse (or if no eligible spouse, to unmarried children until they attain age 18; or, if no eligible children, to a qualifying dependent parent) for the rest of his or her lifetime. This benefit will not be discontinued in the event the spouse remarries.

The remaining 75 percent or 50 percent of the retirement allowance, which may be referred to as the option portion of the benefit, is paid to the retiree as an annuity for as long as he or she is alive. Or, the retiree may choose to provide for some of this option portion to be paid to any designated beneficiary after the retiree's death. Benefit options applicable to the option portion are the same as those offered with the standard form. The reduction is calculated in the same manner but is applied only to the option portion.

Pre-Retirement Death Benefits

Basic Death Benefit

This is a standard benefit.

Eligibility
An employee's beneficiary (or estate) may receive the Basic Death benefit if the member dies while actively employed. A CalPERS member must be actively employed with the CalPERS employer providing this benefit to be eligible for this benefit. A member's survivor who is eligible for any other pre-retirement death benefit may choose to receive that death benefit instead of this Basic Death benefit.

Benefit
The Basic Death Benefit is a lump sum in the amount of the member's accumulated contributions, where interest is currently credited at 7.5 percent per year, plus a lump sum in the amount of one month's salary for each completed year of current service, up to a maximum of six months' salary. For purposes of this benefit, one month's salary is defined as the member's average monthly full-time rate of compensation during the 12 months preceding death.

1957 Survivor Benefit

This is a standard benefit.

Eligibility
An employee's *eligible survivor(s)* may receive the 1957 Survivor benefit if the member dies while actively employed, has attained at least age 50, and has at least 5 years of credited service (total service across all CalPERS employers and with certain other Retirement Systems with which CalPERS has reciprocity agreements). A CalPERS member must be actively employed with the CalPERS employer providing this benefit to be eligible for this benefit. An eligible survivor means the surviving spouse to whom the member was married at least one year before death or, if there is no eligible spouse, to the member's unmarried children under age 18. A member's survivor who is eligible for any other pre-retirement death benefit may choose to receive that death benefit instead of this 1957 Survivor benefit.

Benefit
The 1957 Survivor benefit is a monthly allowance equal to one-half of the unmodified Service Retirement benefit that the member would have been entitled to receive if the member had retired on the date of his or her death. If the benefit is payable to the spouse, the benefit is discontinued upon the death of the spouse. If the benefit is payable to a dependent child, the benefit will be discontinued upon death or attainment of age 18, unless the child is disabled. The total amount paid will be at least equal to the Basic Death benefit.

Optional Settlement 2W Death Benefit

This is an optional benefit.

Eligibility
An employee's *eligible survivor* may receive the Optional Settlement 2W Death benefit if the member dies while actively employed, has attained at least age 50, and has at least 5 years of credited service (total service across all CalPERS employers and with certain other Retirement Systems with which CalPERS has reciprocity agreements). A CalPERS member who is no longer actively employed with **any** CalPERS employer is not eligible for this benefit. An *eligible survivor* means the surviving spouse to whom the member was married at least one year before death. A member's survivor who is eligible for any other pre-retirement death benefit may choose to receive that death benefit instead of this Optional Settlement 2W Death benefit.

Benefit
The Optional Settlement 2W Death benefit is a monthly allowance equal to the Service Retirement benefit that the member would have received had the member retired on the date of his or her death and elected Optional Settlement 2W. (A retiree who elects Optional Settlement 2W receives an allowance that has been reduced so that it will continue to be paid after his or her death to a surviving beneficiary.) The allowance is payable as long as the surviving spouse lives, at which time it is continued to any unmarried children under age 18, if applicable. The total amount paid will be at least equal to the Basic Death Benefit.

Special Death Benefit

This is a standard benefit for safety members. An employer may elect to provide this benefit for miscellaneous members.

Eligibility
An employee's *eligible survivor(s)* may receive the Special Death benefit if the member dies while actively employed and the death is job-related. A CalPERS member who is no longer actively employed with **any** CalPERS employer is not eligible for this benefit. An *eligible survivor* means the surviving spouse to whom the member was married prior to the onset of the injury or illness that resulted in death. If there is no eligible spouse, an eligible survivor means the member's unmarried children under age 22. An eligible survivor who chooses to receive this benefit will not receive any other death benefit.

Benefit
The Special Death benefit is a monthly allowance equal to 50% of final compensation, and will be increased whenever the compensation paid to active employees is increased but ceasing to increase when the member would have attained age 50. The allowance is payable to the surviving spouse until death at which time the allowance is continued to any unmarried children under age 22. There is a guarantee that the total amount paid will at least equal the Basic Death Benefit.

If the member's death is the result of an accident or injury caused by external violence or physical force incurred in the performance of the member's duty, and there are *eligible* surviving children (*eligible* means unmarried children under age 22) in addition to an eligible spouse, then an **additional monthly allowance** is paid equal to the following:

- if 1 eligible child: 12.5% of final compensation
- if 2 eligible children: 20.0% of final compensation
- if 3 or more eligible children: 25.0% of final compensation

Alternate Death Benefit for Local Fire Members

This is an optional benefit available only to local fire members.

Eligibility
An employee's *eligible survivor(s)* may receive the Alternate Death benefit in lieu of the Basic Death Benefit or the 1957 Survivor Benefit if the member dies while actively employed and has at least 20 years of total CalPERS service. A CalPERS member who is no longer actively employed with **any** CalPERS employer is not eligible for this benefit. An *eligible survivor* means the surviving spouse to whom the member was married prior to the onset of the injury or illness that resulted in death. If there is no eligible spouse, an eligible survivor means the member's unmarried children under age 18.

Benefit
The Alternate Death benefit is a monthly allowance equal to the Service Retirement benefit that the member would have received had the member retired on the date of his or her death and elected Optional Settlement 2W. (A retiree who elects Optional Settlement 2W receives an allowance that has been reduced so that it will continue to be paid after his or her death to a surviving beneficiary.) If the member has not yet attained age 50, the benefit is equal to that which would be payable if the member had retired at age 50, based on service credited at the time of death. The allowance is payable as long as the surviving spouse lives, at which time it is continued to any unmarried children under age 18, if applicable. The total amount paid will be at least equal to the Basic Death Benefit.

Cost-of-Living Adjustments (COLA)

Standard Benefit
Beginning the second calendar year after the year of retirement, retirement and survivor allowances will be annually adjusted on a compound basis by 2 percent.

Improved Benefit
Employers have the option of providing any of these improved cost-of-living adjustments by contracting for any one of these Class 1 optional benefits. An improved COLA is not available in conjunction with the 1.5% at 65 formula.

Beginning the second calendar year after the year of retirement, retirement and survivor allowances will be annually adjusted on a compound basis by either 3 percent, 4 percent or 5 percent. However, the cumulative adjustment may not be greater than the cumulative change in the Consumer Price Index since the date of retirement.

Purchasing Power Protection Allowance (PPPA)

Retirement and survivor allowances are protected against inflation by PPPA. PPPA benefits are cost-of-living adjustments that are intended to maintain an individual's allowance at 80 percent of the initial allowance at retirement adjusted for inflation since retirement. The PPPA benefit will be coordinated with other cost-of-living adjustments provided under the plan.

Employee Contributions

Each employee contributes toward his or her retirement based upon the retirement formula. The standard employee contribution is as described below.

- The percent contributed below the monthly compensation breakpoint is 0 percent.
- The monthly compensation breakpoint is $0 for full and supplemental formula members and $133.33 for employees covered by the modified formula.
- The percent contributed above the monthly compensation breakpoint depends upon the benefit formula, as shown in the table below.

Benefit Formula	Percent Contributed above the Breakpoint
Miscellaneous, 1.5% at 65	2%
Miscellaneous, 2% at 60	7%
Miscellaneous, 2% at 55	7%
Miscellaneous, 2.5% at 55	8%
Miscellaneous, 2.7% at 55	8%
Miscellaneous, 3% at 60	8%
Safety, 1/2 at 55	Varies by entry age
Safety, 2% at 55	7%
Safety, 2% at 50	9%
Safety, 3% at 55	9%
Safety, 3% at 50	9%

The employer may choose to "pick-up" these contributions for the employees (Employer Paid Member Contributions or EPMC). An employer may also include Employee Cost Sharing in the contract, where employees contribute an additional percentage of compensation based on any optional benefit for which a contract amendment was made on or after January 1, 1979.

Auxiliary organizations of the CSUC system may elect reduced contribution rates, in which case the offset is $317 and the contribution rate is 6 percent if members are not covered by Social Security. If members are covered by Social Security, the offset is $513 and the contribution rate is 5 percent.

Refund of Employee Contributions

If the member's service with the employer ends, and if the member does not satisfy the eligibility conditions for any of the retirement benefits above, the member may elect to receive a refund of his or her employee contributions, which are credited annually with 6 percent interest.

1959 Survivor Benefit

This is a pre-retirement death benefit available only to members not covered by Social Security. Any agency joining CalPERS subsequent to 1993 was required to provide this benefit if the members were not covered by Social Security. The benefit is optional for agencies joining CalPERS prior to 1994. Levels 1, 2 and 3 are now closed. Any new agency or any agency wishing to add this benefit or increase the current level must choose the 4th or Indexed Level.

This benefit is not included in the results presented in this valuation. More information on this benefit is available on the CalPERS website at www.calpers.ca.gov.

APPENDIX C

PARTICIPANT DATA

- **SUMMARY OF VALUATION DATA**
- **ACTIVE MEMBERS**
- **TRANSFERRED AND TERMINATED MEMBERS**
- **RETIRED MEMBERS AND BENEFICIARIES**

Summary of Valuation Data

		June 30, 2011	June 30, 2012
1.	**Active Members**		
	a) Counts	850	811
	b) Average Attained Age	47.17	46.47
	c) Average Entry Age to Rate Plan	35.34	35.52
	d) Average Years of Service	11.83	10.95
	e) Average Annual Covered Pay	$ 63,176	$ 61,910
	f) Annual Covered Payroll	53,699,986	50,208,946
	g) Projected Annual Payroll for Contribution Year	58,679,425	54,864,671
	h) Present Value of Future Payroll	422,189,114	406,614,317
2.	**Transferred Members**		
	a) Counts	469	463
	b) Average Attained Age	42.73	43.17
	c) Average Years of Service	2.61	2.65
	d) Average Annual Covered Pay	$ 79,907	$ 77,029
3.	**Terminated Members**		
	a) Counts	495	505
	b) Average Attained Age	44.54	45.08
	c) Average Years of Service	2.63	2.68
	d) Average Annual Covered Pay	$ 37,061	$ 37,674
4.	**Retired Members and Beneficiaries**		
	a) Counts	1,683	1,329
	b) Average Attained Age	69.38	68.18
	c) Average Annual Benefits	$ 16,541	$ 23,421
5.	**Active to Retired Ratio** [(1a) / (4a)]	0.51	0.61

Counts of members included in the valuation are counts of the records processed by the valuation. Multiple records may exist for those who have service in more than one valuation group. This does not result in double counting of liabilities.

Active Members

Counts of members included in the valuation are counts of the records processed by the valuation. Multiple records may exist for those who have service in more than one valuation group. This does not result in double counting of liabilities.

Distribution of Active Members by Age and Service

	Years of Service at Valuation Date						
Attained Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-25**	**25+**	**Total**
15-24	9	0	0	0	0	0	9
25-29	40	6	0	0	0	0	46
30-34	45	25	6	0	0	0	76
35-39	30	31	18	4	1	0	84
40-44	44	30	30	22	3	0	129
45-49	34	20	30	23	21	9	137
50-54	33	22	39	22	25	23	164
55-59	19	14	24	12	16	16	101
60-64	8	11	14	10	6	4	53
65 and over	3	3	6	0	0	0	12
All Ages	265	162	167	93	72	52	811

Distribution of Average Annual Salaries by Age and Service

	Years of Service at Valuation Date						
Attained Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-25**	**25+**	**Average**
15-24	$40,453	$0	$0	$0	$0	$0	$40,453
25-29	49,735	46,636	0	0	0	0	49,331
30-34	48,936	56,597	71,655	0	0	0	53,249
35-39	51,372	60,290	62,331	70,428	75,460	0	58,206
40-44	50,415	62,179	65,528	64,635	55,282	0	59,204
45-49	59,211	72,058	67,494	71,220	74,266	74,654	68,238
50-54	61,776	67,097	66,743	82,055	62,794	64,839	66,976
55-59	72,124	68,092	62,266	61,045	66,912	70,890	66,885
60-64	45,126	69,870	59,422	61,602	76,597	73,130	62,823
65 and over	43,077	28,118	61,800	0	0	0	48,699
All Ages	$53,688	$62,670	$64,926	$69,844	$68,068	$69,037	$61,910

Transferred and Terminated Members

Distribution of Transfers to Other CalPERS Plans by Age and Service

	Years of Service at Valuation Date							
Attained Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-25**	**25+**	**Total**	**Average Salary**
15-24	1	0	0	0	0	0	1	$29,939
25-29	38	0	0	0	0	0	38	65,443
30-34	93	2	0	0	0	0	95	75,599
35-39	63	4	2	0	0	0	69	77,265
40-44	60	7	2	0	0	0	69	78,574
45-49	38	15	0	1	1	0	55	76,073
50-54	36	12	9	4	0	0	61	87,526
55-59	36	9	1	2	0	0	48	73,820
60-64	18	4	0	1	1	0	24	85,812
65 and over	3	0	0	0	0	0	3	29,041
All Ages	386	53	14	8	2	0	463	77,029

Distribution of Terminated Participants with Funds on Deposit by Age and Service

	Years of Service at Valuation Date							
Attained Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-25**	**25+**	**Total**	**Average Salary**
15-24	2	0	0	0	0	0	2	$16,056
25-29	56	0	0	0	0	0	56	33,989
30-34	73	1	0	0	0	0	74	34,426
35-39	53	1	0	0	0	0	54	35,456
40-44	58	11	4	0	1	0	74	41,434
45-49	51	6	3	4	1	1	66	46,709
50-54	41	8	5	1	2	0	57	39,639
55-59	54	9	2	2	2	0	69	35,458
60-64	20	9	1	0	0	0	30	31,849
65 and over	18	3	2	0	0	0	23	35,532
All Ages	426	48	17	7	6	1	505	37,674

Retired Members and Beneficiaries

Distribution of Retirees and Beneficiaries by Age and Retirement Type*

Attained Age	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 30	0	0	0	1	0	1	2
30-34	0	0	2	0	0	1	3
35-39	0	0	2	0	0	0	2
40-44	0	2	5	0	0	0	7
45-49	0	6	1	1	0	2	10
50-54	44	8	2	0	0	5	59
55-59	164	9	8	1	0	15	197
60-64	288	18	12	0	0	16	334
65-69	209	4	7	1	0	14	235
70-74	119	3	1	0	0	20	143
75-79	90	7	0	2	0	18	117
80-84	64	5	1	0	0	29	99
85 and Over	68	9	0	0	0	44	121
All Ages	1046	71	41	6	0	165	1,329

Distribution of Average Annual Amounts for Retirees and Beneficiaries by Age and Retirement Type*

Attained Age	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Average
Under 30	$0	$0	$0	$4,016	$0	$4,450	$4,233
30-34	0	0	188	0	0	4,450	1,608
35-39	0	0	153	0	0	0	153
40-44	0	21,962	158	0	0	0	6,388
45-49	0	14,760	4,650	2,898	0	11,996	12,010
50-54	16,014	13,435	221	0	0	27,036	16,063
55-59	25,794	13,571	1,374	13,696	0	15,733	23,417
60-64	29,044	12,450	4,847	0	0	19,539	26,825
65-69	31,612	11,519	6,753	1,112	0	14,974	29,409
70-74	25,071	18,360	3,977	0	0	16,553	23,591
75-79	21,409	12,912	0	14,191	0	21,370	20,771
80-84	20,594	5,960	58	0	0	18,277	18,969
85 and Over	16,634	8,988	0	0	0	14,167	15,168
All Ages	$26,067	$12,513	$3,098	$8,351	$0	$16,942	$23,421

Retired Members and Beneficiaries (continued)

Distribution of Retirees and Beneficiaries by Years Retired and Retirement Type*

Years Retired	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 5 Yrs	419	8	10	2	0	64	503
5-9	276	10	18	2	0	42	348
10-14	140	15	5	0	0	25	185
15-19	91	11	3	1	0	14	120
20-24	55	10	3	1	0	12	81
25-29	37	7	0	0	0	2	46
30 and Over	28	10	2	0	0	6	46
All Years	1046	71	41	6	0	165	1,329

Distribution of Average Annual Amounts for Retirees and Beneficiaries by Years Retired and Retirement Type*

Years Retired	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Average
Under 5 Yrs	$30,650	$19,431	$803	$2,005	$0	$19,844	$28,389
5-9	24,883	10,107	4,866	8,856	0	13,334	21,937
10-14	26,106	13,872	5,150	0	0	17,162	23,339
15-19	22,600	13,820	1,641	10,608	0	21,398	21,031
20-24	17,713	14,019	180	17,773	0	13,381	15,966
25-29	17,674	7,375	0	0	0	6,601	15,625
30 and Over	7,715	8,000	97	0	0	10,497	7,808
All Years	$26,067	$12,513	$3,098	$8,351	$0	$16,942	$23,421

* Counts of members do not include alternate payees receiving benefits while the member is still working. Therefore, the total counts may not match information on page 25 of the report. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.

APPENDIX D

GLOSSARY OF ACTUARIAL TERMS

Glossary of Actuarial Terms

Accrued Liability *(also called Actuarial Accrued Liability or Entry Age Normal Accrued Liability)*
The total dollars needed as of the valuation date to fund all benefits earned in the past for *current* members.

Actuarial Assumptions
Assumptions made about certain events that will affect pension costs. Assumptions generally can be broken down into two categories: demographic and economic. Demographic assumptions include such things as mortality, disability and retirement rates. Economic assumptions include discount rate, salary growth and inflation.

Actuarial Methods
Procedures employed by actuaries to achieve certain funding goals of a pension plan. Actuarial methods include funding method, setting the length of time to fund the Accrued Liability and determining the Actuarial Value of Assets.

Actuarial Valuation
The determination, as of a valuation date, of the Normal Cost, Accrued liability, Actuarial Value of Assets and related actuarial present values for a pension plan. These valuations are performed annually or when an employer is contemplating a change to their plan provisions.

Actuarial Value of Assets
The Actuarial Value of Assets used for funding purposes is obtained through an asset smoothing technique where investment gains and losses are partially recognized in the year they are incurred, with the remainder recognized in subsequent years.

This method helps to dampen large fluctuations in the employer contribution rate.

Amortization Bases
Separate payment schedules for different portions of the Unfunded Liability. The total Unfunded Liability of a Risk Pool or non-pooled plan can be segregated by "cause," creating "bases" and each such base will be separately amortized and paid for over a specific period of time. However, all bases are amortized using investment and payroll assumptions from the current valuation. This can be likened to a home having a first mortgage of 24 years remaining payments and a second mortgage that has 10 years remaining payments. Each base or each mortgage note has its own terms (payment period, principal, etc.)

Generally, in an actuarial valuation, the separate bases consist of changes in unfunded liability due to contract amendments, actuarial assumption changes, actuarial methodology changes, and or gains and losses. Payment periods are determined by Board policy and vary based on the cause of the change.

Amortization Period
The number of years required to pay off an Amortization Base.

Annual Required Contributions (ARC)
The employer's periodic required annual contributions to a defined benefit pension plan as set forth in GASB Statement No. 27, calculated in accordance with the plan assumptions. The ARC is determined by multiplying the employer contribution rate by the payroll reported to CalPERS for the applicable fiscal year. However, if this contribution is fully prepaid in a lump sum, then the dollar value of the ARC is equal to the Lump Sum Prepayment.

Classic Member (under PEPRA)
A classic member is a member who joined CalPERS prior to January, 1, 2013 and who is not defined as a new member under PEPRA. (See definition of new member below)

Discount Rate Assumption
The actuarial assumption that was called "investment return" in earlier CalPERS reports or "actuarial interest rate" in Section 20014 of the California Public Employees' Retirement Law (PERL).

Entry Age

The earliest age at which a plan member begins to accrue benefits under a defined benefit pension plan. In most cases, this is the age of the member on their date of hire.

Entry Age Normal Cost Method

An actuarial cost method designed to fund a member's total plan benefit over the course of his or her career. This method is designed to yield a rate expressed as a level percentage of payroll.
(The assumed retirement age less the entry age is the amount of time required to fund a member's total benefit. Generally, the older a member on the date of hire, the greater the entry age normal cost. This is mainly because there is less time to earn investment income to fund the future benefits.)

Fresh Start

A Fresh Start is when multiple amortization bases are collapsed to one base and amortized together over a new funding period.

Funded Status

A measure of how well funded, or how "on track" a plan or risk pool is with respect to assets verses accrued liabilities. A ratio greater than 100% means the plan or risk pool has more assets than liabilities and a ratio less than 100% means liabilities are greater than assets. A funded ratio based on the Actuarial Value of Assets indicates the progress toward fully funding the plan using the actuarial cost methods and assumptions. A funded ratio based on the Market Value of Assets indicates the short-term solvency of the plan.

GASB 27

Statement No. 27 of the Governmental Accounting Standards Board. The accounting standard governing a state or local governmental employer's accounting for pensions.

GASB 68

Statement No. 68 of the Governmental Accounting Standards Board. The accounting standard governing a state or local governmental employer's accounting and financial reporting for pensions. GASB 68 replaces GASB 27 effective the first fiscal year beginning after June 15, 2014.

New Member (under PEPRA)

A new member includes an individual who becomes a member of a public retirement system for the first time on or after January 1, 2013, and who was not a member of another public retirement system prior to that date, and who is not subject to reciprocity with another public retirement system.

Normal Cost

The annual cost of service accrual for the upcoming fiscal year for active employees. The normal cost should be viewed as the long term contribution rate.

Pension Actuary

A business professional that is authorized by the Society of Actuaries, and the American Academy of Actuaries to perform the calculations necessary to properly fund a pension plan.

PEPRA

The California **P**ublic **E**mployees' **P**ension **R**eform **A**ct of 2013

Prepayment Contribution

A payment made by the employer to reduce or eliminate the year's required employer contribution.

Present Value of Benefits (PVB)

The total dollars needed as of the valuation date to fund all benefits earned in the past or expected to be earned in the future for *current* members.

Rolling Amortization Period

An amortization period that remains the same each year, rather than declining.

Superfunded

A condition existing when a plan's Actuarial Value of Assets exceeds its Present Value of Benefits. Prior to the passage of PEPRA, when this condition existed on a given valuation date for a given plan, employee contributions for the rate year covered by that valuation could be waived.

Unfunded Liability

When a plan or pool's Actuarial Value of Assets is less than its Accrued Liability, the difference is the plan or pool's Unfunded Liability. If the Unfunded Liability is positive, the plan or pool will have to pay contributions exceeding the Normal Cost.